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July 21, 1969

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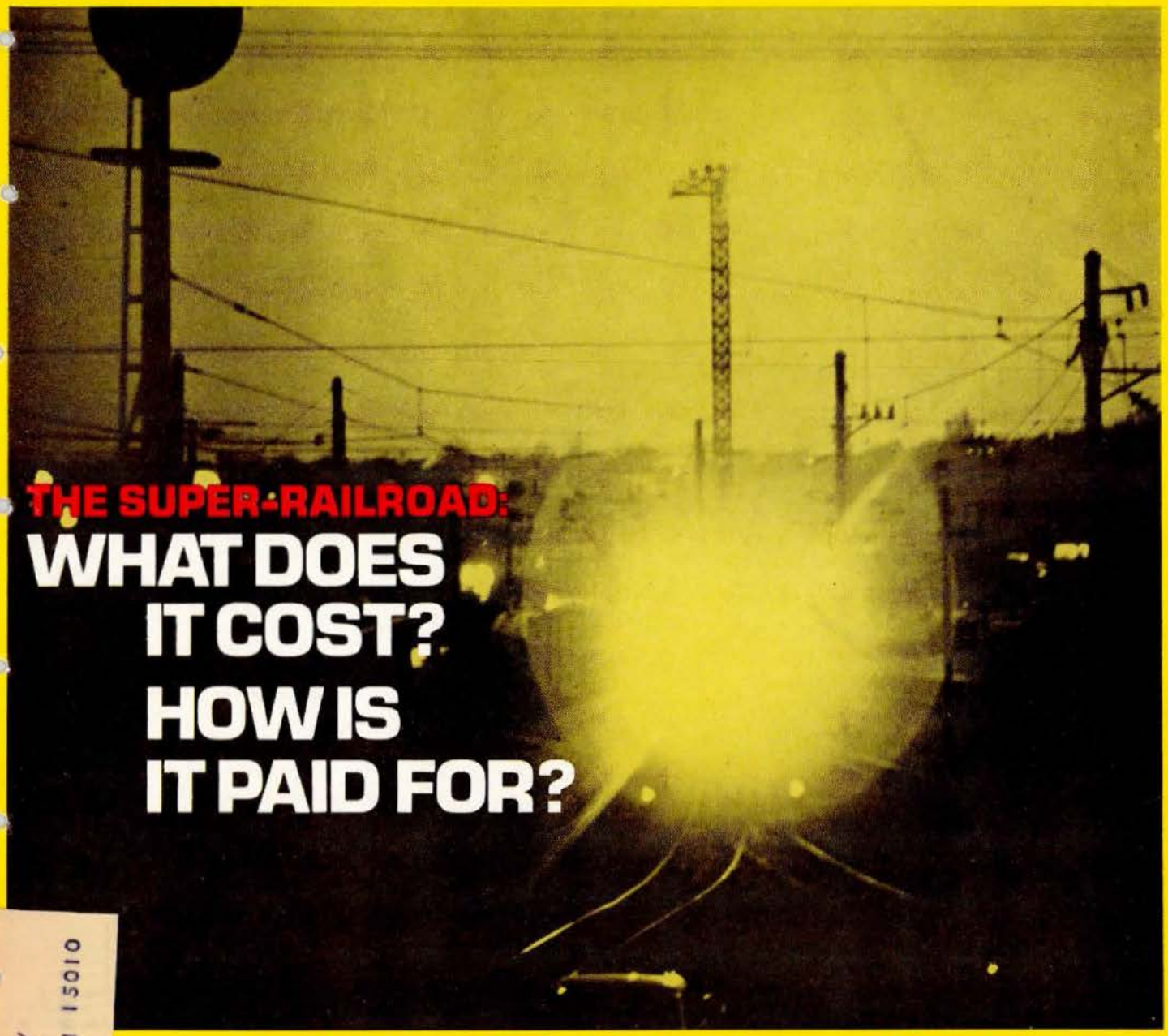
THE TRANSPORTATION WEEKLY



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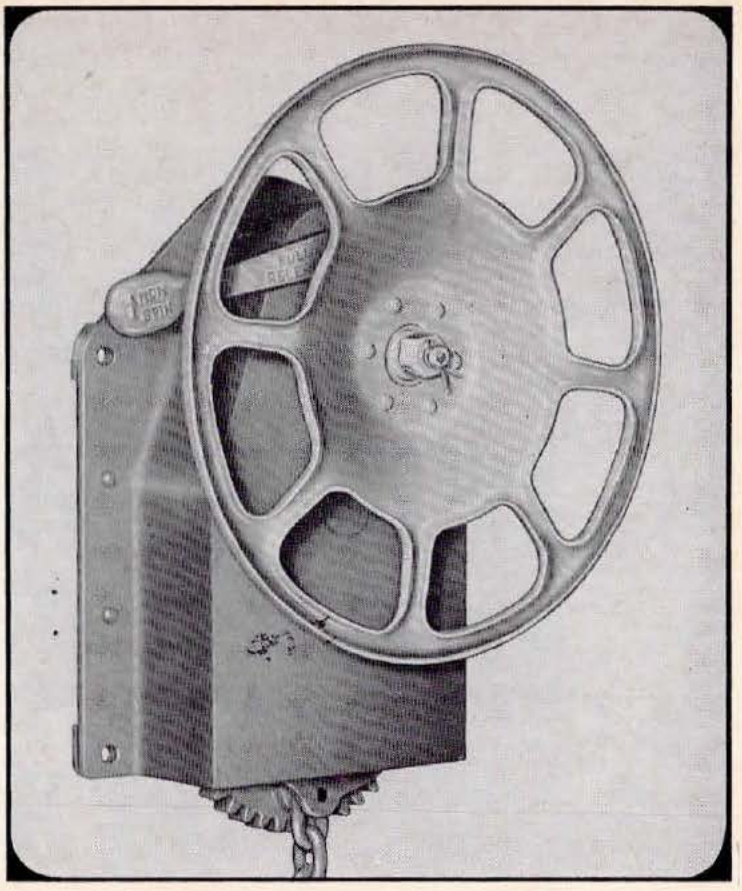

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PARTS REPLACEMENT AGREEMENT

THIS AGREEMENT is between THE TIMKEN ROLLER BEARING COMPANY (hereinafter called the "Company") and _____ (hereinafter called the "Customer"), and is made effective _____ 19___.

In consideration of the purchase by the Customer, on or after the effective date of this Agreement, of Timken® "AP" bearings, for use on railroad freight car applications, the Company hereby agrees as follows:

1. On any Timken "AP" bearing assembly purchased by the Customer during the term of this Agreement for use on freight car applications, the Company will replace or repair, free of charge other than any applicable inspection or service charge otherwise payable and Customer's portion of transportation, any of the parts specified in paragraph 5 below which, within 84 months of the original date of manufacture etched or stamped on the bearing, are found to be in such condition as to require replacement or repair to comply with the standards set forth in the Roller Bearing Manual of the Association of American Railroads as of January 1, 1969. If cup or cone surfaces show evidence of Brinell or fatigue due to normal wear or loading, to the extent that they are not suitable for continued service under standards set forth in the Roller Bearing Manual, the inspection charge otherwise payable will also be waived. If the Roller Bearing Manual should require, or the Customer should specify, that certain parts of the bearing assembly be replaced when the bearing is reassembled, even though such parts are in good condition, the Customer will be charged for the replacement of such parts.

2. The provisions of paragraph 1 above shall also apply, subject only to the 84 months' limitation, to any Timken "AP" bearings purchased by the Customer prior to the effective date of this Agreement.

3. To qualify for replacement of parts under this Agreement, the following requirements must be met, to the best of the knowledge and belief of the Customer and to the satisfaction of the Company:
   a. The condition requiring replacement must be attributable to the quality of material or workmanship in the manufacture of the bearing, and must not be due to damage from derailment, fire, immersion in or exposure to water.
   b. The complete bearing assembly (less axle end cap assembly) including all parts as removed from the axle for inspection must be forwarded to the Company, f.o.b. Columbus, Ohio, fully assembled, and with suitable packaging and/or blocking to prevent damage in shipment and handling, within 84 months of the original date of manufacture, as specified above, with identification of the Customer by or for whom the bearing is being forwarded.
   c. The bearing assembly must have been in use on a freight car operated and maintained in accordance with loading and other rules and standards of the Association of American Railroads for cars in interchange service.
   d. There must not have been any modifications or alterations of the bearing assembly, unless authorized in writing by the Company, nor any improper repairs or any substitution in the bearing assembly of bearing components made by another manufacturer.

4. Following inspection and repair or replacement of parts in accordance with this Agreement, the complete bearing assembly (less axle end cap assembly) will be returned by the Company to the Customer, f.o.b. Columbus, Ohio, subject to such freight allowances as the Company may from time to time establish applicable to all customers of the same class.

5. The bearing parts which are covered by this Parts Replacement Agreement are the cones, cup, cone spacer, seals, seal wear rings, backing rings and vent fittings. Other parts of the bearing assembly - axle end cap, cap screws, locking plate and lubricant fitting - are covered by the warranty referred to in paragraph 6 below.

6. This Parts Replacement Agreement supplements the warranty set forth in the "Conditions of Acknowledgment and Acceptance of your Purchase Order," under which the bearings were originally sold by the Company to the Customer.

7. Except as provided in paragraph 3d above, this Parts Replacement Agreement will apply where the condition of parts requiring replacement or repair has been found upon inspection either by the Company, or by the Customer or any other person for the Customer prior to the forwarding of the complete bearing assembly to the Company in accordance with paragraph 3b above.

8. In the event of any dispute concerning the qualification of a bearing for replacement of parts under this Agreement, the necessity for replacement or repair of particular parts, or any other question concerning the application of this Agreement, the decision of the Company will be final.

9. This Agreement is for a term of _____ months from and after the effective date, and may be extended for successive periods of twelve (12) months by notice in writing from the Company to the Customer. Following the termination of this Agreement, any bearing assembly to which this Agreement became applicable during its initial term or any extension will continue to be eligible for replacement of parts in accordance with the provisions hereof.

IN WITNESS WHEREOF, the Company has executed and delivered this Agreement to the Customer as of the effective date specified above.

APPROVED:

THE TIMKEN ROLLER BEARING COMPANY

_____
General Manager - Sales or Assistant General Manager - Sales
Railroad Division
The Timken Roller Bearing Company

By _____
District Manager, Railroad Division

Only the Timken® "AP" bearing 7-year Parts Replacement Agreement cuts maintenance cost two ways. And has been doing it since April 1.

First, we'll replace or repair any part found unserviceable due to normal wear or loading up to 7 years from date of bearing manufacture.

Second, the same service applies to bearings you *now* operate. Even to "AP" bearings manufactured 7 years ago.

Which means you save on normal operating maintenance on every Timken "AP" bearing you purchased since 1962—not just on the "AP" bearings you purchase today.

To find out how we can help you save, talk to your Timken Company Sales Engineer.

The Timken Roller Bearing Company, Canton, Ohio. Timken bearings sold in 133 countries. Manufacturing in Australia, Brazil, Canada, England, France, South Africa, and the U.S.A.

Our word is as good as our bearing.

TIMKEN®
REGISTERED TRADEMARK
TAPERED ROLLER BEARINGS

Circle 4 on coupon page 32

RAILWAY AGE

July 21, 1969 • Vol. 167, No. 3

THIS WEEK

TOMORROW'S RAILROADS NO. 7

This latest section of a continuing series explores the financing problems of the future . . . . . p. 19

27 Southern steam train promotes good will

It's a good way to win friends, says the road's President Claytor.

44 Viewpoint—Where's the money coming from?

Tomorrow's railroads will need large amounts of capital—soon.

DEPARTMENTS

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. . . AND COMING NEXT WEEK

Railroads keep finding new ways in which the ubiquitous computer can help to improve service. Railway Age takes a look at two new applications in the July 28 Freight Traffic issue. One, Louisville & Nashville's RAMROD system, is described as "a first major step toward giving the operating man a practical way to use the computer." The other, Santa Fe's operations-simulation program, is already returning dividends —but they're only part of the benefits which the road hopes eventually to receive. Like all Freight Traffic issues, this one will go to 10,000 industrial traffic managers in addition to our regular subscription list.

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SHORT AND SIGNIFICANT

Timken plans $214-million improvements

The Timken Roller Bearing Co. is planning to spend over $214 million for capital improvements in the U.S. in the years 1969 through 1975. Comparable expenditures during the past seven years totaled $134 million. The planning for the 1970s has integrated items already under construction with many new projects. The latter include an increase in productive capacity at the Canton, Ohio, bearing plant; larger warehousing facilities and replacement of equipment at Columbus; expansion of capacity in the bearing plant and the shipping center at Bucyrus; a new bearing plant.

Scott bill would separate 40 crossings

The rail share of the estimated $30-million cost of separating 40 crossings between Washington, D.C., and Boston would be 10%, according to a bill introduced July 10 by Sen. Hugh Scott (R.-Pa.). The bill provides Federal money to build overpasses and underpasses on the high-speed route. Penn Central and the Transportation Department have endorsed the bill.

Study will seek transport cure for city ills

Can adequate transportation make a city's social and welfare programs more effective? That's the main issue of a study announced for Kansas City, Mo. The Transportation Department and the Housing and Urban Development Department will provide $444,923 for the 27-month project. Kansas will add $49,436. Looking for answers to the city's transportation and related social problems, the study will concentrate on the mobility needs of Kansas City's disadvantaged segment, according to spokesmen.

Chicago gets an intermodal container terminal

Chicago has opened its first intermodal container terminal. The 30,000-sq-ft facility will handle about 250 containers a month arriving from the Far East. Operated by Omni Overseas Freight, Inc., and located on the Burlington in suburban Berwyn, the new container center will take freight originating in Japan, Hong Kong and Korea, and unpack, inspect and sort it for distribution to Chicago and other Midwest retail outlets. The CB&Q is building a 10-car-capacity track in the terminal to speed the handling of the cars and containers.

Rock Island opens a new TOFC terminal

Rock Island is now operating out of a new, $100,000 piggyback terminal at Fort Worth—after a Texas-style opening which included a barbecue. The terminal's two tracks will accommodate 14 TOFC/COFC flat cars. RI piggyback traffic at Forth Worth is now handled on three inbound and two outbound trains daily. Rock Island people used the occasion of the opening to point out once again what piggyback means to the railroad: TOFC revenue last year totaled more than $25 million, and TOFC General Manager Howard S. Ownley says his road is looking for increases up to 35% in revenues and trailer loadings in 1969.

New scale developed—to do more than weigh

A new kind of freight-car scale went into operation this month on the Texas Mexican at Laredo—a scale which, its developers say, can be adapted to do a lot more than just weigh cars. The scale itself is an electronic, computerized in-motion unit designed to meet standards of accuracy which permits deviations of no more than 0.2%. Its developers, Sands Measurement Corp. of Dallas, peg its operating costs at approximately 8 cents per car weighed. And, Sands says, the unit can be adapted to detect a number of trouble conditions, including overloads, off-center loads, potential hotboxes, flat wheels and skewed axles. Installation of the first production model, the company notes, caps a nine-year research program and seven years of testing in freight yards under operating conditions.

MONDAY MORNING REPORT

DOT LOOKS FOR DOLLAR-SAVING DATA

What the U.S. now spends each year for transportation is equal to 20% of the gross value of what the U.S. produces each year. Nothing new, there. However, if you must spend that much ($170 billion) to move your people and products, you should spend a little more to find out how those transport dollars can be stretched. That's what the Transportation Department says. That's why DOT has asked the House Appropriations Committee for $35.6 million to set up a centralized information system covering all modes.

WEAK DATA MEANS WASTED MONEY

Transport decisions depend on analysis. Decisions involving huge costs often are based on weak information. The chance for expensive errors increases as data adequacy decreases, says John A. Volpe, DOT secretary. "The magnitude of expenditures involved in many decisions on transportation items is so great that even relatively small savings—resulting from the information program—will be large in absolute terms."

DOT LOOKS FOR PATTERNS

Volpe wants to know what flow-patterns people and goods follow. What are the population and industrial activities that generate those flows? What channels carry the traffic of each flow? For the answers, 75% of DOT's proposed outlay would go for intra-urban projects—to determine the best data methods for personal travel, goods movement and transport facilities within cities. About 19% would go for inter-urban studies—to find the best data methods for air, road and rail goods movement and transport facilities between cities.

RAILS GET EQUAL TREATMENT

For a change, rails come off favorably in the proposed allocation. For a three-year project on intra-urban rail movement of goods, DOT would spend $650,000. Road studies get a little more; air, a little less. Using existing systems (such as waybill data) as much as possible, DOT would check a commodity's type, weight, revenue, equipment, and transit time and distance. DOT would also spend $800,000 to study inter-urban rail facilities. The rail network would be investigated by segments. For each link, DOT would look at time, length, safety, signals, location, number of main and secondary tracks and length and spacing of passing tracks. Data would come mainly from transfer of information from maps to computers. This project would take three years. DOT would also measure the overall rail potential. DOT would check rail mergers, technology, equipment utilization, rate structure, and mass transit capabilities.

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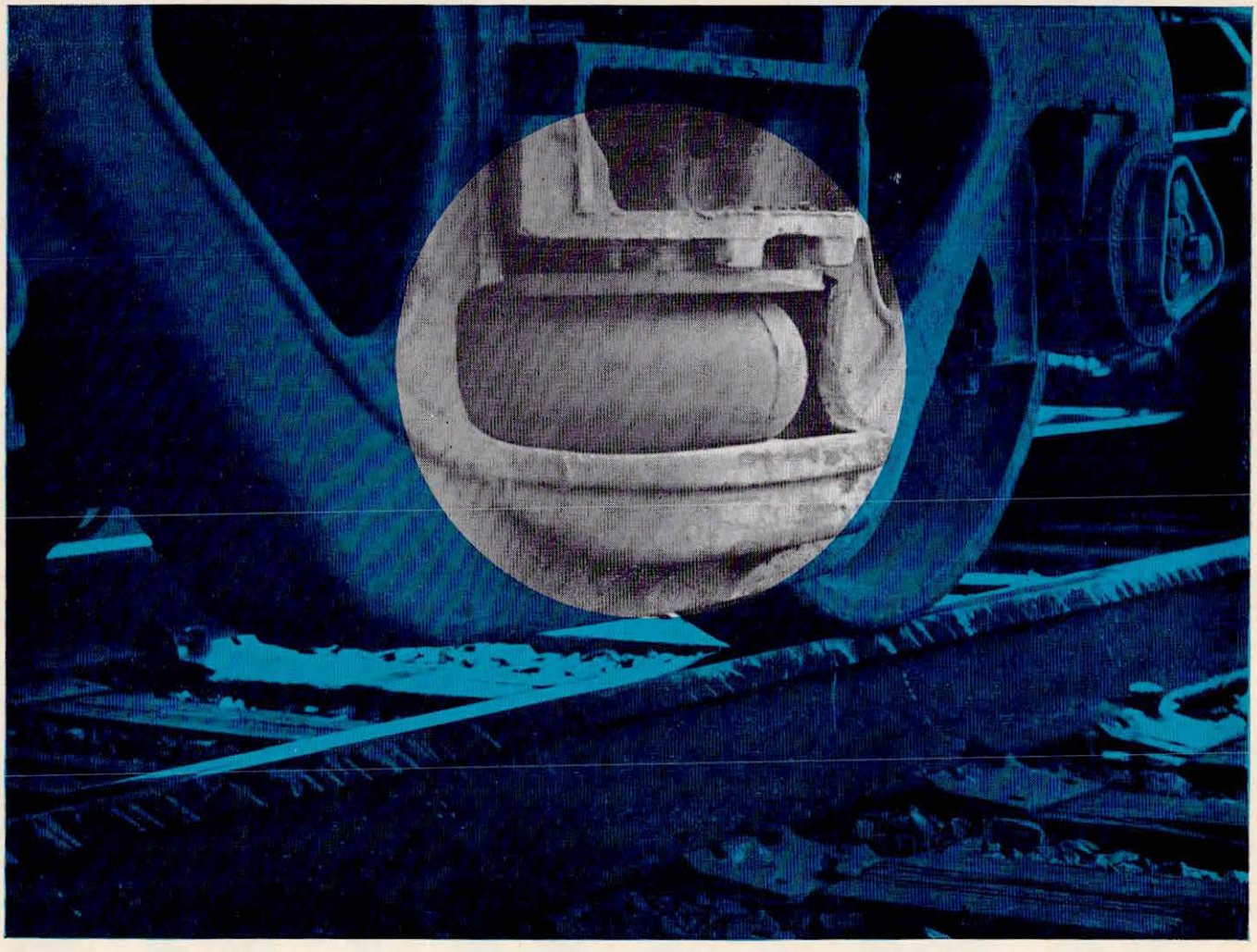

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This remarkable rubber spring for freight car trucks won't break, wear, corrode, fall out, "Brinell," or bottom abruptly.

That's quite an improvement. But what the new Lord Lastosphere spring *will do* is even better.

Thanks to its unique spherical shape, it will stiffen as loads increase, soften as loads decrease. This produces the same ride characteristics loaded or light.

It will reduce the chance of lading and bolster damage since it does not bottom solidly.

Lastosphere bonded rubber spring* for high speed, high-capacity service.

* Patent applied for.

LORD®

Lord knows...the railroad industry

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Just one Lastosphere spring will replace the steel coil spring pack you now use per side frame.

It will fit most standard AAR side frame designs for 70 and 100 ton cars with minor modifications.

Its specially compounded elastomer will endure railroad conditions.

Why not find out what the Lastosphere spring will do in your trucks? Both 70 and 100 ton truck springs are available.

Contact: *Railroad Products Group, Lord Manufacturing Company, Division of Lord Corporation, Erie, Pa. 16512.*

RAILWAY AGE
THE TRANSPORTATION WEEKLY
JULY 21, 1969

Transport strikes: How can they be prevented?

WEEK AT A GLANCE

Transportation industries and their unions should work out their own means of preventing strikes and lockouts. But if management and labor can't do this voluntarily, then Congress should step in with legislation giving the President a choice of weapons to use in blocking serious work stoppages.

That, in sum, is the recommendation of an American Bar Association special committee which has been studying the industry's labor relations for the past three years. The ABA's House of Delegates will be asked to endorse the proposals at the association's annual meeting, Aug. 11-14, in Dallas.

Committee recommendations cover the railroad, airline and maritime industries. They provide, first, for creation of tri-partite (management, labor, public) commissions in each industry to develop voluntary plans for "eliminating or minimizing the danger of strikes or lockouts which impair national security or threaten serious injury to the health, safety or welfare of a large segment of the public." The commissions would be given eight months to do this job. If they fail, then the ABA group says Congress should amend the Railway Labor Act and Taft-Hartley to provide new means for settlement of disputes.

These "new means" would start with mediation and conciliation under the auspices of a Presidential Emergency Mediation Board, which would have 60 days in which to try to get the parties together. If mediation fails then the Board would be empowered to recommend that the President take one of four possible actions:

—Make settlement recommendations public and give labor and management 30 days in which to agree.

—Appoint an arbitration board to make a binding settlement.

—Create an "executive receivership" of the carrier or carriers involved.

—Discharge the Emergency Mediation Board and drop the case.

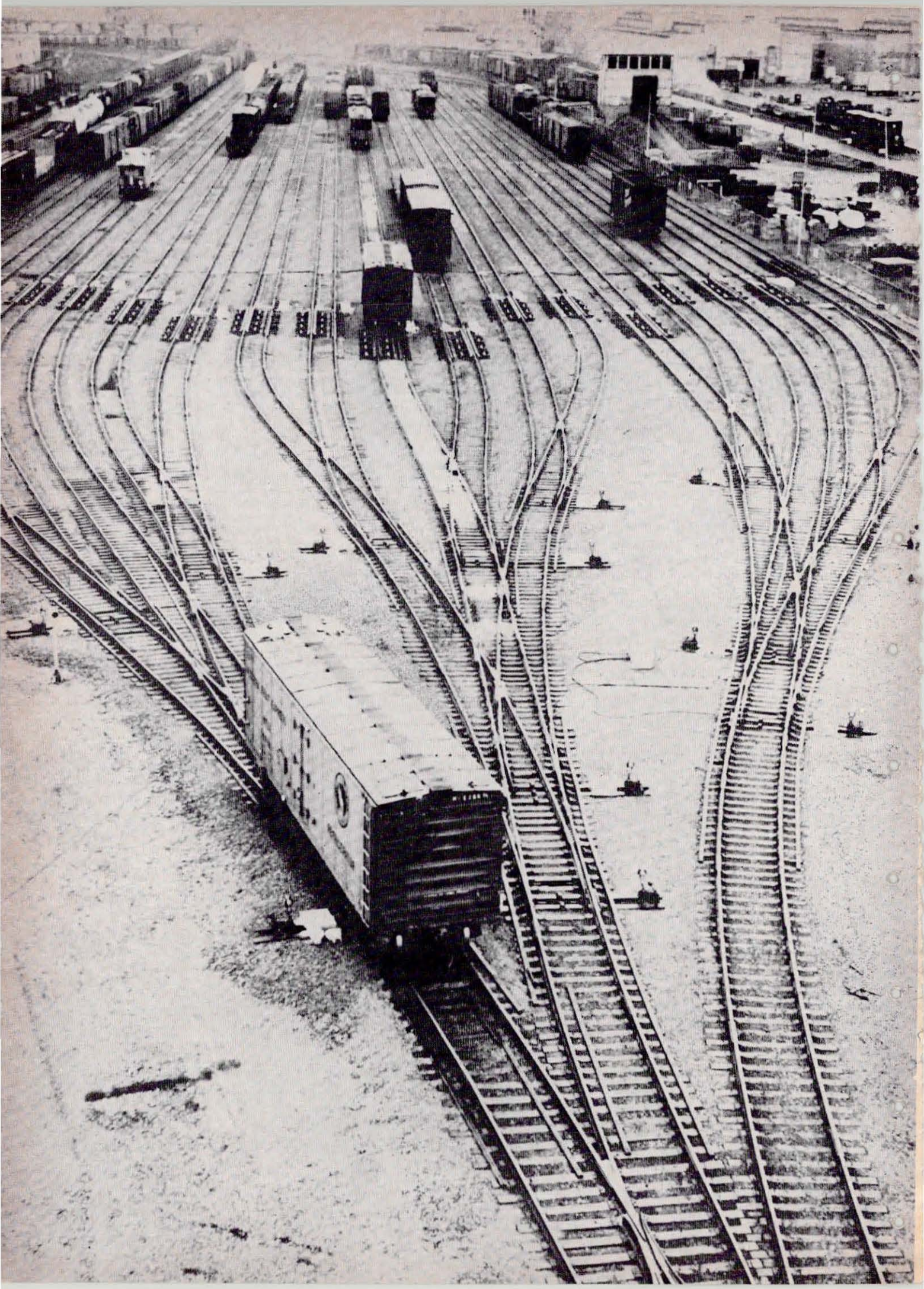
A decision to go to arbitration or seizure would not be lightly made. Frst, the President would have to find a potential national security problem or a large-scale public health-safety-welfare problem.

In studying current conditions the special ABA Committee found that Section 10 of the Railway Labor Act —the emergency board provision—is "failing to perform adequately the functions for which it was designed." In the committee's opinion, "new standing safeguards are urgently required."

As for the sanctity of collective bargaining, the committee has this to say: "The current national policy of preferring settlements reached by bargaining to those dictated . . . by government should be retained. That policy must, however, be qualified insofar as necessary . . . to protect the public interest against the massive cost that would result from major stoppages in transportation industries."

CP tools up for trans-Atlantic container moves

A fleet of 50 special 85-foot lightweight flat cars has been put in service as Canadian Pacific tools up to move trans-Atlantic containers. Each of the 61,000-pound cars, fitted with transverse bolsters including two that fold down, can handle four loaded 20-foot or two 40-foot containers weighing up to 202,000 pounds. According to CP Rail, the cars, built by National Steel Car, are the longest and lightest in Canadian container service. They are equipped with end-of-car cushioning. In conjunction with three new containerships being built for CP Ships, they will make up solid container trains scheduled to be run from Quebec City to Montreal and to Toronto. Overseas ship terminals: London and Rotterdam.



GREAT NORTHERN DOUBLES CAR-HANDLING SPEED WITH ABEX ECONOMATIC® YARD

Between 1962 and 1967, freight traffic at Balmer flat yard, Seattle, increased 21 per cent.

To meet the load, Great Northern brought in extra switch engines. More personnel. But the switching job was still too heavy to handle efficiently.

Great Northern solved the problem with wide-scale modernization and conversion to "push button" switching, incorporating the newest Abex Economatic Yard concept.

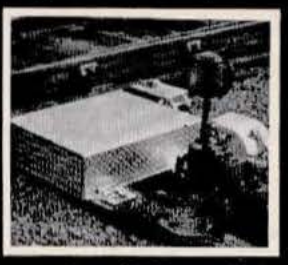
Abex route switching control panel of Great Northern's Economatic installation at Balmer Yard.

Now Balmer handles 50,000 cars monthly. Cars move through the yard about twice as fast as they did with flat switching. Costs are lower. Time is saved.

The Balmer operation, based on Abex solid-state route switching control, utilizes a master retarder on a low hump, with a weight-compensating retarder for each of 16 class tracks. Tower-controlled Racor H-22 hydraulic switch machines route cars to proper tracks. Mechanical retarders at yard end eliminate skates.

Here are a few of the many time-and-money saving features of Balmer's Economatic yard:

- Humping speed of 3 cars per minute.
- Improved car separation through minimized crest-to-clearance distance.
- Minimum grading costs; a low hump with scattered tracks provides required car separation.
- Coupling speed limited to 5 mph or less reduces damage to cars and loading.
- Stalling or cornering at curves or switches is eliminated.
- No sophisticated computer needed to determine rollability.
- Operator simply routes cars; retarders operate automatically for pre-determined release speeds.
- Car movements can double those previously possible.



One of 15 Racor H-22 switch machines controlled from tower with Abex equipment.

Want a demonstration of "push button" switching efficiency? Ask your Abex representative to arrange for you to see the Economatic concept in operation.

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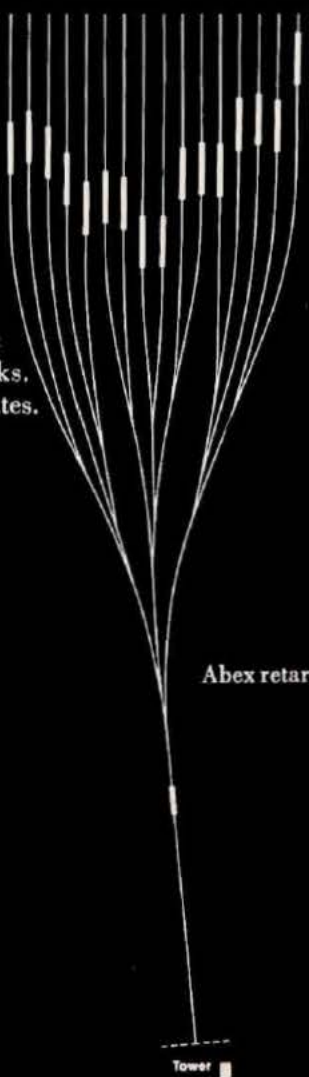


Abex retarder locations at Balmer Yard.

Abex Economatic Yard installation at Balmer Yard, showing 16 class tracks with car heading into first of three retarder-equipped groups.

GUS WELTY

LINES ON LABOR

WITH ALL THE HELP the railroad industry gets from outsiders, it's sometimes surprising that the industry has survived this long. For a new example of "help," turn to the report of emergency Board 173 on a wage/rules dispute between the Long Island and the United Transportation Union. Read it and weep—if the tear ducts have not already run dry.

IN BRIEF, Board 173 recommended a joint study of work rules. LIRR and UTU have since signed a memo of understanding which sets up that study. Then, Board 173 went just a bit farther, in telling the parties what they ought to do. "An additional wage adjustment," Board 173 said, "should be negotiated by the parties during the term of any new collective bargaining agreement to reflect an equitable distribution of all savings that can be anticipated from the abolition or change of existing work rules made pursuant to the recommendation of this joint committee."

THE BOARD'S SUGGESTION means—what? The memo of understanding between carrier and union says the study committee's recommendations "shall be considered in terms of being to the mutual benfit of both parties." But the report itself seems to imply strongly that every dime of savings, real or anticipated, should be passed along in the form of adjustments in pay. At UTU headquarters in Cleveland—where Board 173's findings were received with broad smiles—that's exactly the interpretation that's accepted: *All* savings from work-rules changes must go to the men.

IF THIS IS WHAT Board 173 really meant to say, then the industry is in trouble, in bad trouble. Among carrier people, there has always been the intent to *share* savings. Railroads have been trying to put work-rules proposals into a framework of industry-strengthening—that is, rules changes can help to make the industry more competitive, and stronger railroads will be able to provide more and better jobs. But to pass along *all* savings, retaining none to apply to capital improvements or stepped-up maintenance programs? It just doesn't make sense.

PERHAPS THE LIRR study committee can come up with practical proposals, acceptable to both sides and to their "mutual benefit." Board 173 did say it was "impressed by the expressed desire of the organization to fully cooperate with the carrier in its efforts to moderize service." So maybe there's hope, after all—hope that UTU won't demand everything Board 173 seemed determined to give it.

WABCO offers transit plan for Pittsburgh

Westinghouse Air Brake (WABCO) has proposed a $114-million rapid transit system for Pittsburgh. The plan would utilize existing rights of way. It was presented to directors of Port Authority Transit (PAT) as an alternative to the proposed Skybus system of Westinghouse Electric

WABCO President Lawrence E. Walkley said the proposed "PAT-METRO" system could be phased in with a minimum of service interruption. He added that it would be "reasonable in total cost and can be financed on a phased basis which, we believe, is manageable."

The proposal was drawn up at the request of PAT. As WABCO sees it, the principal advantages are these:

"1 Work can get under way immediately with certainty as to ultimate cost and ability to perform.

"2. The world's most advanced—and proven—technology will be utilized, with no development time or costs involved; and no air pollution or unacceptable noise factors.

"3. A total of 28 route miles, between Library, the Golden Triangle and Wilkinsburg, will be served, although the inital phase would cover 15 miles.

"4. Service will be provided where passengers live, work and travel, rather than in empty inaccessible areas.

"5. The WABCO 'PAT-METRO' system will provide a generous number of stop locations without sacrifice of fast service.

"6. Staging will be 'manageable,' financed in phases, with no construction or operating uncertainties."

WABCO's proposal is offered in three phases. Phase 1 is designed to produce immediate visible improvements on three present rail services (Library-Drake, Mt. Lebanon, and the shuttle service between Mt. Lebanon and Castle Shannon). In Phase 2, improvements will be made to fixed facilities and rolling stock to prepare for major construction. In Phase 3, a fourth Metro service would be added from downtown to Wilkinsburg and further east, if desired.

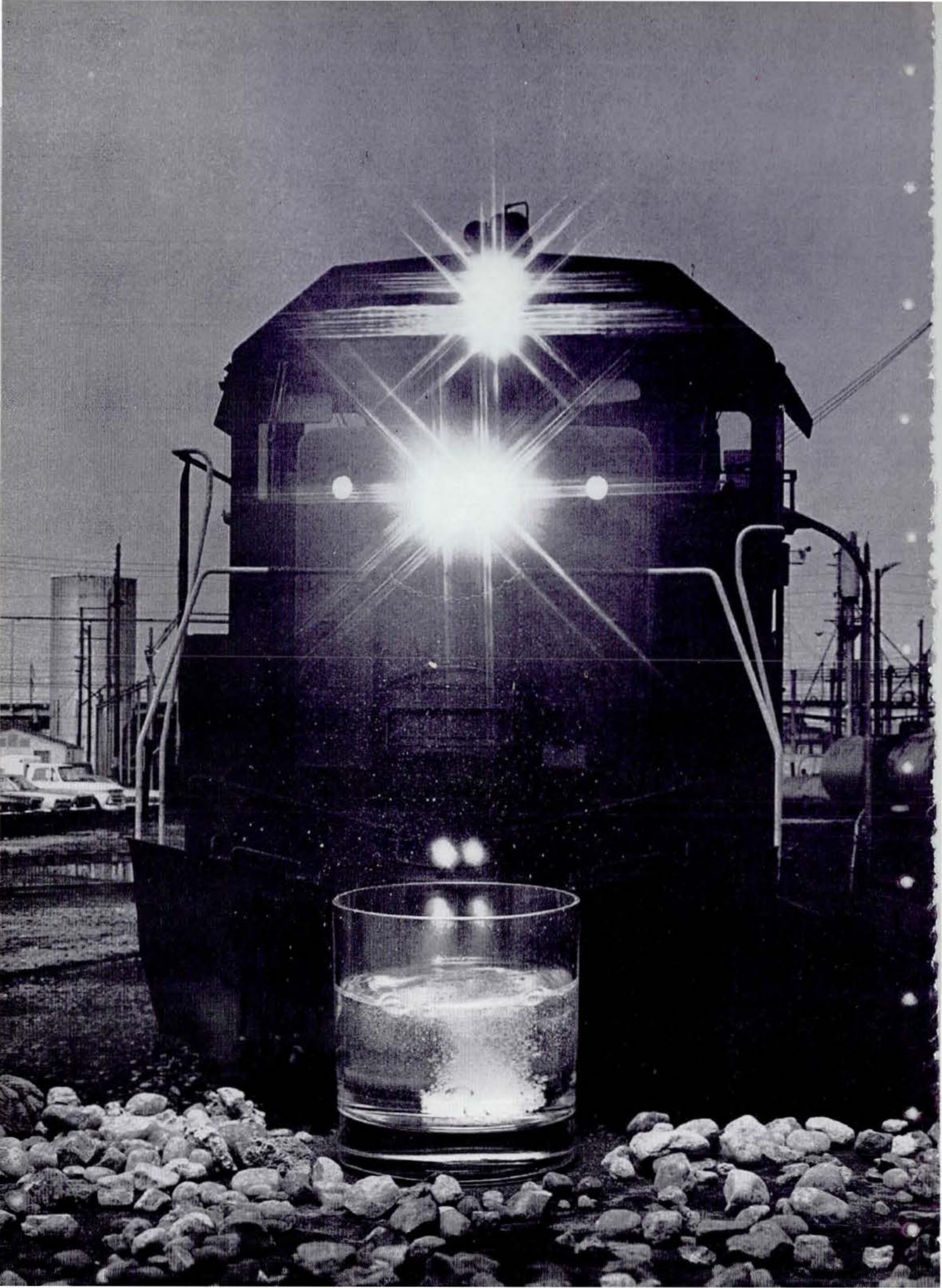
WABCO envisions eventual addition on certain routes of express commuter service with 70-ft, 85-mph cars, serving stations separated by 1½ to 4 miles, with terminals as far away as Washington, Ligonier and Butler. This service would provide limited stops within Pittsburgh.

New ideas are the Stanray way of doing things

New X-panel roof provides greater strength under stress!

Twisting and racking are two of the greatest stresses a roof on a railroad car is subject to. The X-Panel Roof's strength lies in resisting these common stresses, because there are less panels to twist and move. Standard's new roof has panels 61½" wide instead of the normal 41", which results in approximately 33% fewer seam caps. It also means less chance of leakage. Install by welding or riveting (your option). ■ Why not contact your Standard Railway Equipment representative and ask about the new roof that provides greater strength under stress.

STANDARD RAILWAY EQUIPMENT
division of STANRAY CORPORATION
Hammond, Indiana • Chicago



Humble announces the Antacid Railroad Oil.

New DIOL® RDS-81 tripled oil life in a severe-service railroad test with high-sulfur fuel. Projected savings from 8-month test: $1500 per locomotive per year. The reason: superior base number retention.

It's easy to control acid build-up, temporarily, by loading an oil with alkaline additives. But Humble has done something more permanent. We made new DIOL RDS-81 inhibit acid formation by inhibiting oxidation.

So it retains its alkalinity and gives anti-wear protection in severe service long after other oils fail.

In a test on a western railroad, DIOL RDS-81 actually started out less alkaline than the high-quality oil that the railroad had been using.

But their oil dropped to their condemning pH limit of 4.5 within 2 months in each of the 3 comparison locomotives. 12 oil changes in 8 months.

4 oil changes vs. 12

New DIOL RDS-81 running in the same high-output type locomotives, with the same high-sulfur fuel in the same expedited heavy-duty freight service required a total of only 4 changes. 4 vs. 12: three times longer life.

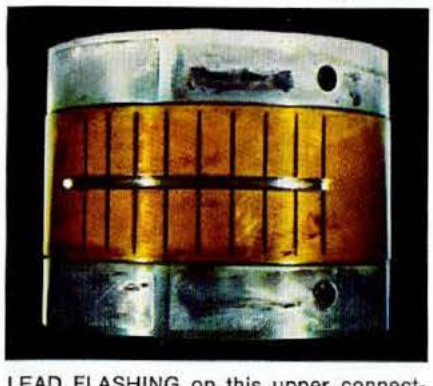
Projecting the oil, filter and labor savings of DIOL RDS-81 in this test indicates annual savings of $1,000 per locomotive.

30% less top ring side wear

An additional $500 per year in maintenance savings is projected from the 8-month reduction in wear. For example, critical top ring side wear, which determines the overhaul period of these engines, was 30% less with our new oil.

Want to know more about this astonishingly long-lived oil? Clip the coupon and let a Humble railroad man give you the money-saving details.

Visual proof of antacid action.



LEAD FLASHING on this upper connecting rod bearing is completely gone after 97,000 miles on an Eastern railroad using high-quality oil.

LEAD FLASHING is still intact after 97,000 miles on new DIOL RDS-81, same road, same service. Striking evidence of the anti-corrosive action of the antacid oil.

Esso

Where you get all the extras.

HUMBLE OIL & REFINING COMPANY
Railroad Sales Department
P. O. Box 2180
Humble Building, Houston, Texas

Yes, I want to know how much extra oil life we can expect with new DIOL RDS-81, the antacid oil. Send details of tests and let's discuss.

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Railroad

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RAILWAY AGE
THE TRANSPORTATION WEEKLY

TOMORROW'S RAILROADS

NO. 7

SUPER-RAILROADS NEED SUPER-FINANCING

Continuing a 12-part exploration of what can and must be done to create the 21st century railroad . . . the 21st century transportation system

BY GUS WELTY

● **Money isn't everything.** But, as a poor man once said, it seems to be 'way ahead of whatever's in second place.

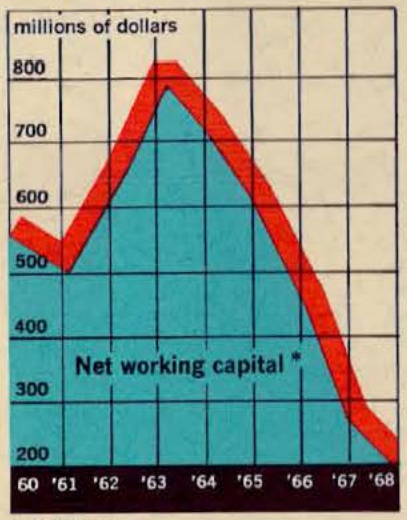
Money isn't everything, even to a railroad. But somewhere, in every equation dealing with the railroads of tomorrow, there's a dollar sign. And it looms bigger and bigger as time goes by.

Unfortunately, there is still no accurate way to measure the size of the investment which must be made. In recent years, the industry has been getting by with capital spending averaging about $1.5 billion per year. Few observers want to regard this as an adequate figure. Estimates of the real investment need range up to $5 billion per year, for at least a decade.

● **One problem in trying to assess** capital requirements lies in the nature of the business itself. Railroads are privately-owned. There are a great many of them, and their planning is necessarily done largely on an individual basis. There is no strong pressure group pleading a case for the public interest in connection with railway improvement programs. There is no "public works" aspect to railway plant improvement, as there is with highway, airway/airport or inland waterway plant improvement.

Railroads are also subject to a certain discipline in their capital planning—a discipline which is less binding in other forms of transportation. Railroads must finance their own programs. They must also take the responsibility for the market or economic results of the programs they carry out.

Net Working Capital: Dropping Sharply



*End of year

● **Questions might be raised** regarding the bases on which transportation plans are made. Plant-improvement planning for highways, for airways/airports, for the inland-waterway system, is made on a basis of predicted or assumed expansion. Plant-improvement planning for railroads reflects growth factors to a lesser extent.

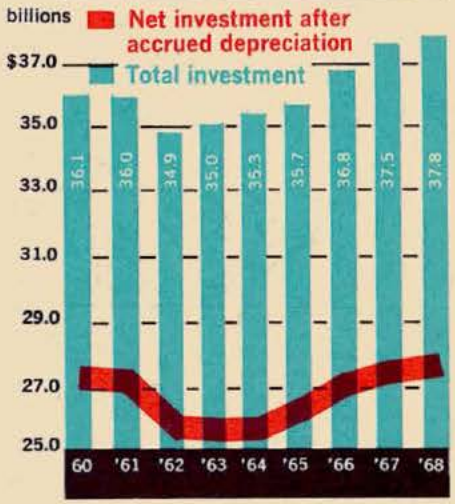
So there is a transportation-planning gap—one which must be closed, if transportation is to meet tomorrow's demands. It's been one analyst's comment that "in view of the traffic significance and the general significance of the railroads, this gap must be regarded as calamitous."

● **Better and more comprehensive** planning is one requirement which must be met. But there are others.

One observer warns that "in seeking a solution for the railway capital investment problem, it would be fatal to limit thinking solely to the financial problem—urgent as that matter is. Much more basic and total action is needed both within and without the industry than merely to devise some temporary financial expedients—useful as they might be. Nothing is more clear than that a complete revolution in rail pricing and service is required before anyone—the railroads, the investment bankers, the ICC or the public—will have a decisive and clear test as to how much capital investment really will be needed in railroading, and whether any significant net capital formation will be required."

That observation is not new – but it is still current. The "revolution in rail pricing and service" is indeed under way—but it's a long way from being complete.

Railroad Investment: A Slow Climb

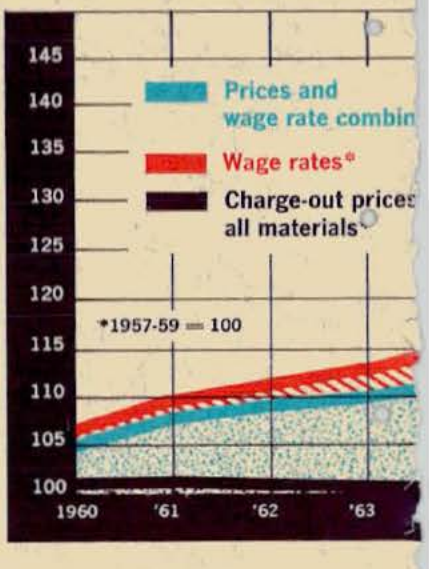


● **What's involved** in the "capital problem"? Capital has been defined as money used for productive purposes. It represents money retained for reinvestment in the property, or it is money obtained from new investors upon the credit of the company. Credit is another word for faith—investors' faith that the money they entrust to an enterprise will be used in ways that will produce an operating profit, out of which reasonable interest or dividends can be paid while reserves are maintained to restore the life worn out of capital assets. On that basis, how do railroads fare?

Historically, the industry has had little trouble in financing equipment. The "security" is the best, default is virtually unheard-of. Money generally is available to those willing or able to pay the going price for it. Fixed-property improvements, however, can't be financed the way equipment is. Outside money is not so easily obtained. In part because of this, fixed-property spending runs a poor second to equipment spending – and this imbalance can exact severe penalties if no way is found to correct it.

● **Most observers might agree** that today's railroads, planning for tomorrow, need both to invest and to disinvest, to put more money into worthwhile use and to get rid of operations and facilities which no longer serve a useful purpose. Railroads will also need more accurate measurements of what money will do, in terms of revenue-generating service and profitability and return in investment. And if some present estimates of capital needs are anywhere near correct, railroads will have to build, or find, new capital sources.

Cost Index Pattern: It's Up,



● **Debate on this last point** can get hot – as it has in connection with railroad diversification through the holding-company or conglomerate route.

● **The stated aims** of this kind of expansion are simple. A company broadens its base. It reduces its dependency upon one source of income, and a cyclical source at that. It improves its access to capital markets. It may be in an improved tax position. In theory, the railroad part of the enterprise benefits from the increased stability of the over-all enterprise.

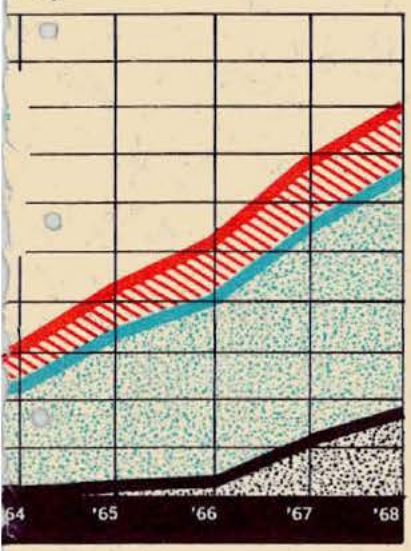
Skeptics aren't so sure that the aims are really that simple or direct. There is concern that diversification really will mean disinvestment, and that the railroad part of the conglomerate will suffer. There is concern that the railroad, a low-rate-of-return business, will have little money lavished on it when a greater return can be earned from investment in some other division of the company.

Neither the expansionists nor the skeptics can prove a case yet. The whole trend, as it affects the railroad industry, is too new. But on balance–and on the basis of early returns – it does not seem that railroads are being lost in the conglomerate shuffle. And in a way, the whole question becomes moot, if you accept one railroad chief executive's view of the situation: "If conglomerates spell survival, they certainly serve a purpose."

● **Surfacing now,** too, are other key questions – not only on the future sources of capital but also on its application to get maximum value from every dollar.

● **Much investment,** in recent years, has been what

, Up



might be called pressure-investment–reaction to external demand. Discretionary investment has been more limited – partly because there hasn't been that much money left after pressure-investment needs were satisfied. The situation does have a certain brutal logic to it: A company that wants to continue serving a customer must pay heed to his demands. Increasingly, however, financial experts in management–and some operating people as well–are questioning the processes by which investment decisions are made. They're not convinced that, in all cases, the wisest moves have been made. And they're not at all sure that decision-makers have always had the best and the most accurate information to aid them in judging between alternatives.

● **It's in this area** that the computer may make one of its biggest contributions to railroading–in the kind of cost/benefit analysis and investment-result simulation which will be possible. Managers will be able to bombard the machine with "what if?" queries–and the answers received can then serve as a stable underpinning for dollar decisions.

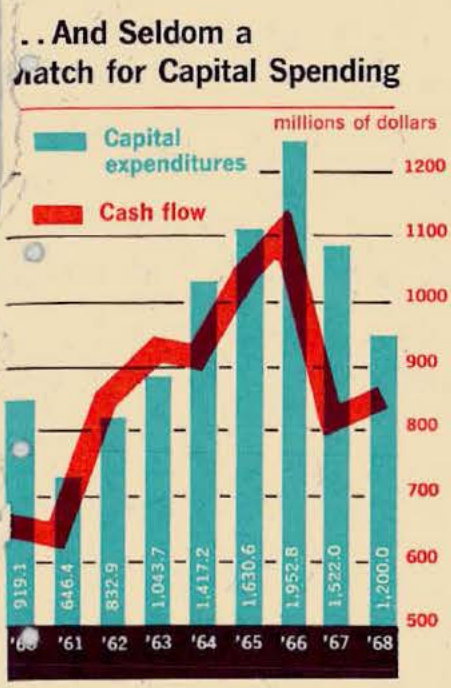
● **Even without computer analysis,** however, it seems sure that railroads will be spending a greater proportion of available dollars – both in capital investment and in operating funds–on the railroad plant itself. New means of financing these improvements may be needed. In the meantime, changes in depreciation policies could spur this kind of activity. And, in fact, changes in depreciation policies may be mandatory, if government is at all interested in promoting railroad improvement as part of over-all transportation improvement.

Experience would indicate, however, that while railroads may *want* to spend more on the fixed-property, they will be under continuing – perhaps intensifying – pressures to spend more on equipment. Something, somewhere, may have to give. New financing concepts could come from this continuing dollar squeeze. Government, transportation users and the railroads themselves might all wind up working together.

Cash Flow:
A Climb and Then a Drop...

- **Government** obviously is not the ogre it once was, in considerations of railroad financing. A decade ago, most roads scorned the idea of federal participation in solving freight-car supply problems. Now, railroads seek federal participation in solving the equipment problems of commuter and long-haul passenger operations. Some joint venture in the freight-car field could yet develop. At the same time, at least two proposals have been talked about which involve government in the problems of fixed-property improvement. One is a sale-and-lease-back proposition. The other suggests that some form of trust-fund approach might be used–and, of course, that kind of funding has worked for the Interstate highway system and is being proposed for airways and mass-transit development.

- **In the private sector,** several options might be considered, primarily in the equipment-financing area. Activity in leasing has grown significantly – and not just among so-called "poor" companies. Customer lease or ownership of equipment is on the increase. And there are railroad men–perhaps railroad customers as well–who are giving serious study to the question of whether



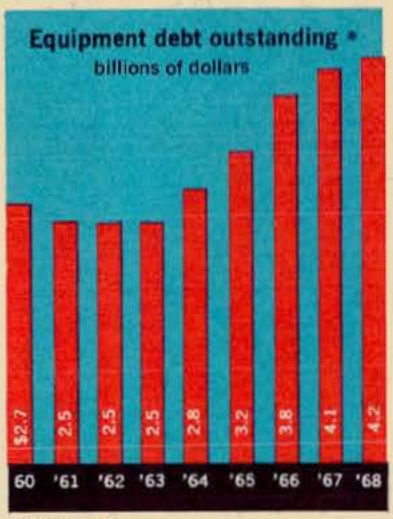
a railroad should become strictly a transportation agency, furnishing right-of-way and power and crews and leaving equipment supply solely in the hands of the transportation buyer.

● **Underlying all problems** of finance, however, are doubts which keep nagging: Will investors have confidence in the future of railroads? Is nationalization a possibility, and would it solve anything? Is the nation, the government, really interested in the development of the kind of transportation systems which will best serve the nation's needs?

Investors, some say, show little fear. Railroad stock yields are not at all bad, and there has been a certain stability to prices. This may be comforting to the so-called "true investor" who is more interested in yield than in price appreciation. At the same time, some railroad financial officers worry that market speculators in the investment community "have become discouraged because price/earnings ratios haven't skyrocketed, and so they figure that railroads might as well be unloaded on the government."

● **Under the circumstances,** nationalization must be regarded as a distinct possibility. It's been pointed out that the factors which led to nationalization in other countries also exist here, to one extent or another. It might not matter that nationalization has not *solved* problems in other nations. What might matter is government's belated realization that railroads are vital—and that they must be preserved and improved. The tragic part of this is that government, if only it would,

Equipment Debt: A Steady Increase



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could move now to preserve and improve railroads—and, by so doing, virtually eliminate the possibility of having to step in at some too-late date to salvage what may be left.

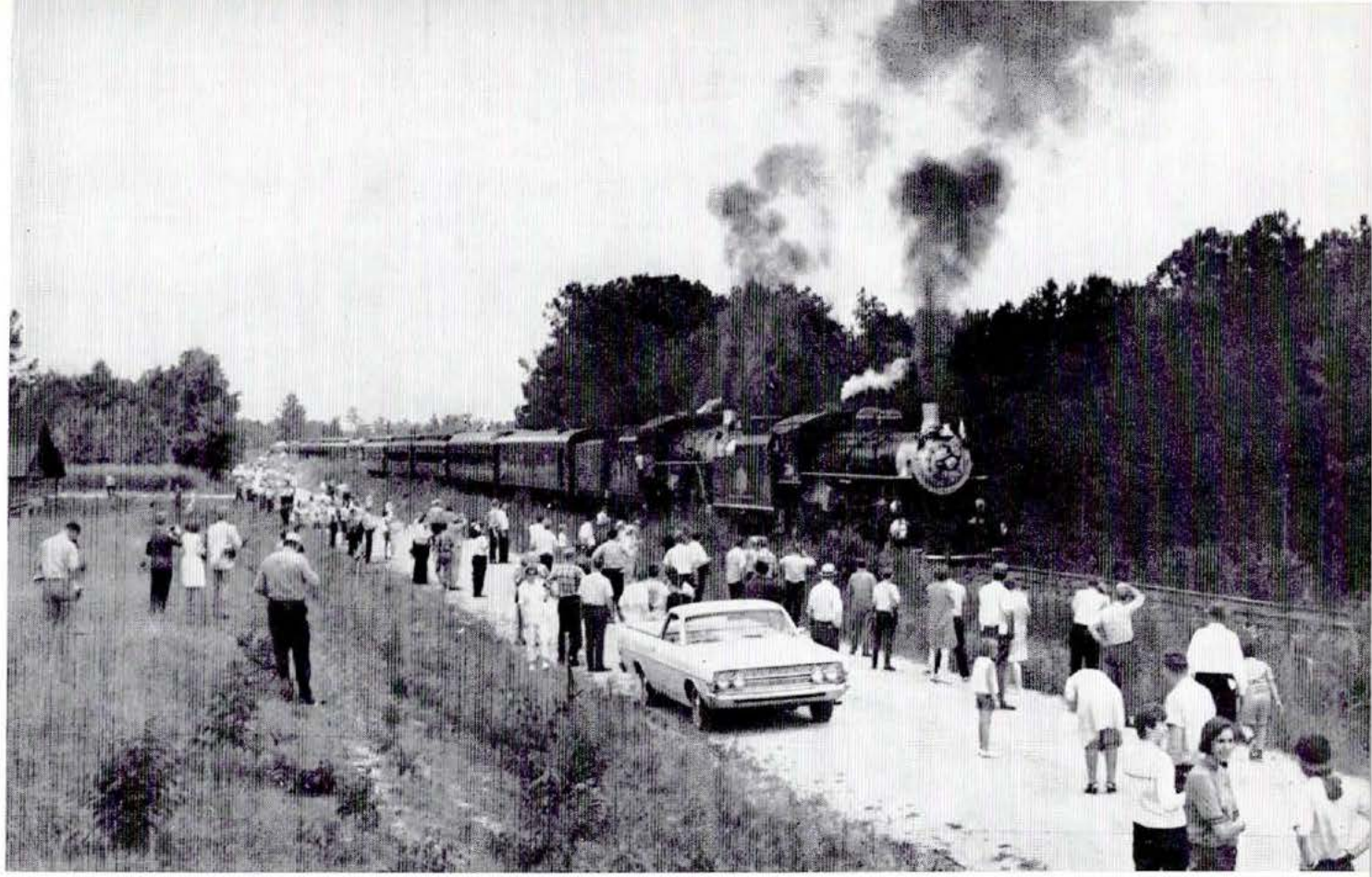
If railroads were still a monopoly or if railroads were guaranteed a certain rate of return (which is impossible in the absence of a monopoly situation), financing problems would be greatly reduced. If government were to permit a free-market operation in transportation, railroad financing problems might be greatly reduced (after the initial shock wore off).

- **None of these situations** is likely to come to pass. So the outlook for tomorrow is mixed. Railroads, first, will be putting far more effort into the building of *profitable* business. They will be using every known tool to develop revenue/cost analyses. They will be working on change in government policy toward transportation. They will be exploring new ways to get the money needed for the improvements that are needed. And they will be heeding the advice of one longtime observer to reconsider priorities: "If it should be true that railroads cannot attract large amounts of investment capital and cannot improve the plant to the extent they would like to, then in order to survive as a free enterprise they must do a better job with what they have. That means they have to use their non-capital assets more effectively."

- **A railroad man replies:** "Non-capital or capital—*all* assets have to be used more effectively. But we've got to find more of both kinds."

Coming Aug. 25
Part 8:

COMPETITION, COORDINATION, COMMON OWNERSHIP



STEAM FANS JAM an abandoned highway along the Southern branch line for the trip's high point—the photo run-by.

Special steam run promotes good will

"In this business we need friends," says Southern President Claytor. One way to get them is to run special steam trains.

By FRANK MALONE, Washington Editor

Gaillard, Ga., pop. 20, lies 104 miles south of Atlanta. It gets pretty hot there around one o'clock on a July afternoon. The temperature, however, wasn't the main reason why Mrs. Jennie Reed, age 89, was out one recent day on her front porch, just a peach's throw from a Southern Railway branchline.

Mrs. Reed was wearing an engineer's cap. She was waiting for a train called the "Georgia Peach Special." The train was something strange. It had passenger cars. It was pulled by two steam locomotives. It was going to make a stop just for Mrs. Reed. Southern's president, W. Graham Claytor, Jr., was going to get off the train to say hello.

It all happened just about on schedule. The train was four minutes late out of Atlanta. It was about 1:45 p.m. when Claytor walked up to the white frame house. "So nice to see you. We wish you could be with us. We're delighted to have a chance to stop by and see you, anyway," the Southern president said. He presented the cane-supported lady with a Southern travel clock, complete with dial light.

As he walked back to the train, Claytor said, "We can't get by without seeing Miss Jennie."

Behind the warm scene on a hot day were these basic facts:

—W. Graham Claytor, Jr., is a rail fan as well as a rail president.

—Claytor believes in the power of steam trains to promote good will.

—Jennie Reed, as a child, was aboard the first passenger train through Gaillard in 1886 on the old Atlanta & Florida railroad.

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—Jennie Reed's family owned a local sand pit that gave Southern regular but low-revenue traffic.

—Because of poor health, Mrs. Reed this year could not ride the annual steam excursion as in the past.

—Claytor thought it only proper that Mrs. Reed get some official recognition.

• **Friends are needed.** The stop at the Reed house was an example of how Claytor's steam philosophy is carried out. His views are expressed succinctly like this: "In this business we need friends, and we'll take them any way we can get them if it's not too costly."

If the steam excursions can make enough money to cover the railroad's out-of-pocket costs, Claytor says, then what is there to worry about?"

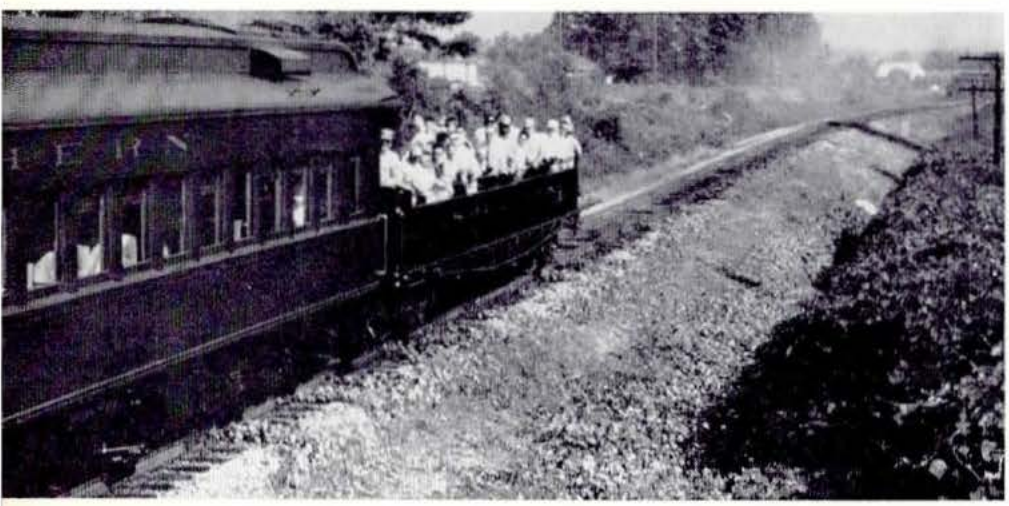
• **Trains make money.** The steam trips actually bring Southern some revenue, Claytor says. Capacity of the "Georgia Peach Special" was 652 passengers. The train could have been filled, but ticket sales were stopped after 570 seats were sold by the trip sponsor, the Atlanta Chapter of the National Railway Historical Society, Inc.

Adult tickets cost $9, children's were $5.75. The operation cost Southern nothing. Total paid passengers showing up were 548, with 467 adults. Southern's share of the fares was $3,085. Out of pocket costs totaled $600, Claytor says; profit was $2,485. Some of that goes to maintain No. 630.

(Continued on page 30)

W. GRAHAM CLAYTOR, JR., rail president and rail enthusiast, leans from the cab of No. 750, a Pacific 4-6-0, whose throttle he took for part of the trip.

RAIL FANS FORE AND AFT



A CONVERTED GONDOLA and former Southern inspection car provided the best place to catch the sight, sound, swing—and smell—of the Georgia steam excursion.

(Continued from page 27)

Meeting costs, however, is not the only requirement Claytor sets for would-be excursionists. The sponsor must take full responsibility for getting the trip to run smoothly. "The sponsoring organization really has to do all the work. They tell us when they want to go and where they want to go, and we work out an accommodation," he says.

• **A railfan, at heart.** Nevertheless, the Southern president doesn't exactly sit back and just let things happen. He keeps his eye on every detail, from locations of coal and water stops to the varying speed limits governing the trip.

Behind this interest is Claytor's strong belief in the public relations value of such ventures. He's a self-admitted rail fan as much as the passengers on his special trains. He's the kind of fan who says: "I love to sleep on a train. I like to feel the wheels rolling under me."

He's enough of a railfan to listen to the prolonged monologue of a rail buff describing tape by tape the recordings he's made of steam sounds. Claytor's enough of a fan to tell that kind of fan—after the dialogue is finished—where the best place is on the train to make some more recordings.

Aboard the Peach Special, Claytor could be seen talking with fans he recognized from previous trips, and with new passengers like the one "who came all the way from Dallas to be with us."

Southern's president says without embarrassment: "I enjoy these trips." But he adds: "Every county newspaper along the line will carry a favorable article."

Can the benefits be measured in any way? Claytor replies that you can't measure the PR results in dollar and cents any more than you can determine how much "you get out of running a full-page ad in Railway Age."

The excursions, however, go a long way to offset bad publicity generated by misfortunes like crossings accidents and train derailments, he believes.

• **25 excursions.** For Claytor, the Georgia Peach Special represented approximately the 25th fan trip he's made since coming to Southern in 1963 as a law vice president.

"I was interested then in these things. By default I sort of got put in charge of fan trips for the railroad," he says.

Claytor adds that he was told that if he really was interested, he should go ahead and "do something."

That interest has kept him on steam trips ever since, from a 3,000-mile ride in 1965, to the 230-mile excursion that took him past the Reed house.

• **Southern's locomotive.** The second steam locomotive on the Special was Southern's No. 630, a Consolidation 2-8-0 type built in 1904 by American Locomotive Co. Although built for Southern, No. 630 was sold to the East Tennessee when the diesels came in. Southern re-purchased the steam locomotive in 1968.

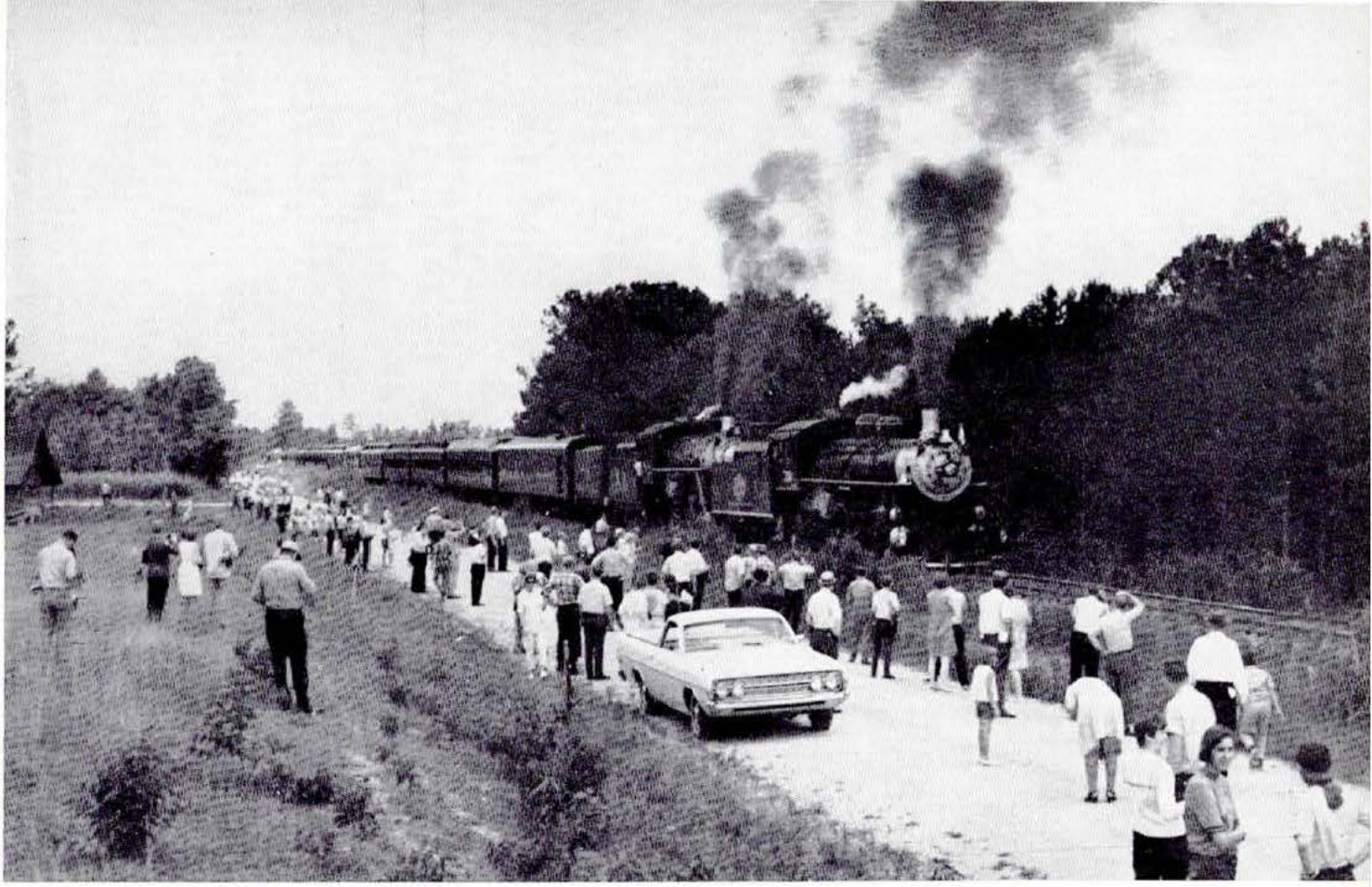
The other locomotive was the NRHS Atlanta chapter's No. 750, a former Savannah & Atlanta Pacific 4-6-0 type. It also was an American Locomotive Co. product. Florida East Coast took delivery of No. 750 in 1910. It went to the S&A in 1964. S&A donated it to the NRHS in 1964. For a short distance after the "Georgia Peach Special" left Griffin, Ga., 42 miles south of Atlanta, Claytor took over the throttle of No. 750.

Both locomotives were manned by volunteers from the ranks of retired steam engineers and firemen.

• **The route.** For the southbound segment of the Special's route, Central of Georgia tracks were used from Atlanta to Griffin (42 miles), and Southern branch trackage from Griffin to Fort Valley (71 miles).

Approximately 80 miles south of Atlanta, the train stopped near an abandoned highway for the customary photographers' run-by.

Mid-point of the trip, Fort Valley, Ga., was the scene of a two-and-a-half hour layover in the sun-baked peach-land. The train was turned around on a wye track. The locomotives were coaled and watered.



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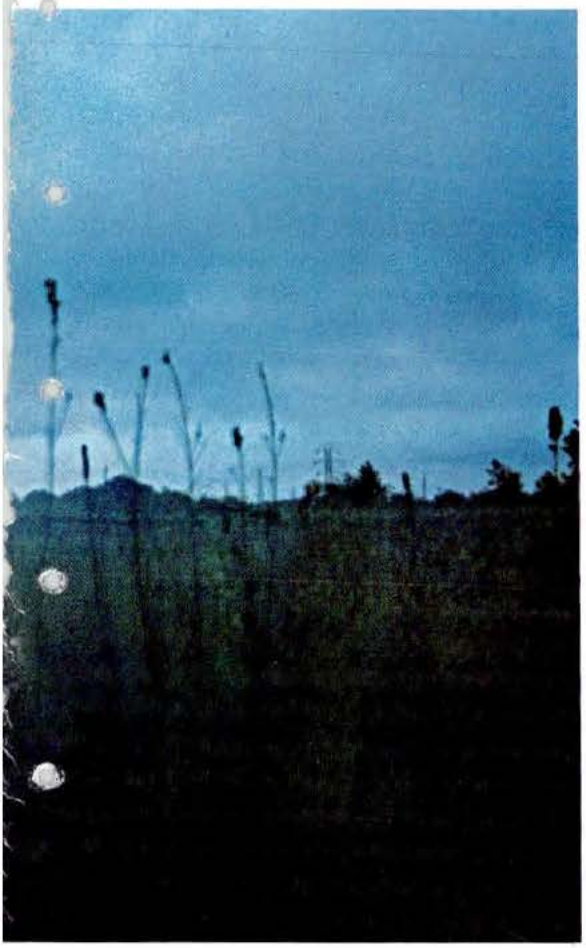
Never mind the fine print.

What do you do when it doesn't work?



Sometimes, even something we make stops working.

Sometimes it's our fault. Sometimes it's your fault. And, sometimes it's nobody's fault. That's why every industry has warranties.

Ultimately, only one thing is important: being able to count on the good name of the manufacturer.

Pullman-Standard's good name has a hundred year history. But this assurance of quality is more than reputation. Nowhere is it more tangible than in our Sales and Service engineers, who often call on you before you have to call on them.

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W. GRAHAM CLAYTOR, JR., rail president and rail enthusiast, leans from the cab of No. 750, a Pacific 4-6-0, whose throttle he took for part of the trip.

RAIL FANS FORE AND AFT

A CONVERTED GONDOLA and former Southern inspection car provided the best place to catch the sight, sound, swing—and smell—of the Georgia steam excursion.

(Continued from page 27)

Meeting costs, however, is not the only requirement Claytor sets for would-be excursionists. The sponsor must take full responsibility for getting the trip to run smoothly. "The sponsoring organization really has to do all the work. They tell us when they want to go and where they want to go, and we work out an accommodation," he says.

• **A railfan, at heart.** Nevertheless, the Southern president doesn't exactly sit back and just let things happen. He keeps his eye on every detail, from locations of coal and water stops to the varying speed limits governing the trip.

Behind this interest is Claytor's strong belief in the public relations value of such ventures. He's a self-admitted rail fan as much as the passengers on his special trains. He's the kind of fan who says: "I love to sleep on a train. I like to feel the wheels rolling under me."

He's enough of a railfan to listen to the prolonged monologue of a rail buff describing tape by tape the recordings he's made of steam sounds. Claytor's enough of a fan to tell that kind of fan—after the dialogue is finished—where the best place is on the train to make some more recordings.

Aboard the Peach Special, Claytor could be seen talking with fans he recognized from previous trips, and with new passengers like the one "who came all the way from Dallas to be with us."

Southern's president says without embarrassment: "I enjoy these trips." But he adds: "Every county newspaper along the line will carry a favorable article."

Can the benefits be measured in any way? Claytor replies that you can't measure the PR results in dollar and cents any more than you can determine how much "you get out of running a full-page ad in Railway Age."

The excursions, however, go a long way to offset bad publicity generated by misfortunes like crossings accidents and train derailments, he believes.

• **25 excursions.** For Claytor, the Georgia Peach Special represented approximately the 25th fan trip he's made since coming to Southern in 1963 as a law vice president.

"I was interested then in these things. By default I sort of got put in charge of fan trips for the railroad," he says.

Claytor adds that he was told that if he really was interested, he should go ahead and "do something."

That interest has kept him on steam trips ever since, from a 3,000-mile ride in 1965, to the 230-mile excursion that took him past the Reed house.

• **Southern's locomotive.** The second steam locomotive on the Special was Southern's No. 630, a Consolidation 2-8-0 type built in 1904 by American Locomotive Co. Although built for Southern, No. 630 was sold to the East Tennessee when the diesels came in. Southern re-purchased the steam locomotive in 1968.

The other locomotive was the NRHS Atlanta chapter's No. 750, a former Savannah & Atlanta Pacific 4-6-0 type. It also was an American Locomotive Co. product. Florida East Coast took delivery of No. 750 in 1910. It went to the S&A in 1964. S&A donated it to the NRHS in 1964. For a short distance after the "Georgia Peach Special" left Griffin, Ga., 42 miles south of Atlanta, Claytor took over the throttle of No. 750.

Both locomotives were manned by volunteers from the ranks of retired steam engineers and firemen.

• **The route.** For the southbound segment of the Special's route, Central of Georgia tracks were used from Atlanta to Griffin (42 miles), and Southern branch trackage from Griffin to Fort Valley (71 miles).

Approximately 80 miles south of Atlanta, the train stopped near an abandoned highway for the customary photographers' run-by.

Mid-point of the trip, Fort Valley, Ga., was the scene of a two-and-a-half hour layover in the sun-baked peach-land. The train was turned around on a wye track. The locomotives were coaled and watered.

Fort Valley responded adequately. The town's 1925 LaFrance fire engine provided the water. The mayor led a welcome ceremony. The Jaycees manned a peach market. And there was a Georgia barbecue right in front of the station.

The return was made on Central of Georgia track from Fort Valley to Macon (29 miles) and on Southern high-iron mainline from Macon to Atlanta (88 miles). About 75% of that line is equipped with welded rail. The steam locomotives could go full throttle for the first time. The speed on the return often was so fast that the hard rain of cinders forced abandonment of the ex-gondola car on the end of the train.

That brings up another indication of Claytor's empathy with railfans. The former gondola once was a Southern inspection car. It had been converted by cutting down the sides and putting a railing around and a roof above. For fan trips, however, the roof had to go. "I didn't like the roof," Claytor says. He added eight brightly-varnished benches, too.

There were 10 coaches in the train consist, two of them with open windows for the real buffs. At one point on the return, Claytor slipped unnoticed into an open-window seat. For much of the trip the open cars turned out to be the most comfortable. The air-conditioning on the closed cars couldn't work unless the train was moving at high speed. It was hard, however, to find a railfan very much upset by that inconvenience.

The train also carried a baggage car transformed into a commissary by the Atlanta chapter. There were available soft drinks, box lunches, goggles, caps, decals, patches, postcards and red neckerchiefs. The wide doors were left open, wooden crossbars protected the buffs hanging out for a lungful of soot.

Throughout the trip, spectators lined the track in varying numbers. They had been alerted by the publicity effort of the Atlanta NRHS supplemented by a Southern press release distribution to 20 major TV, radio and newspaper media along the route.

Things like the Fort Valley barbecue and the crowds along the way were the evidence to prove Claytor's conviction about steam's good-will potential.

However, another form of evidence came as the train moved into the Atlanta terminal in the evening.

A young mother looked out the window and then said to her two children: "There's a freight train."

She looked out again. She seemed to focus on one thing for a few seconds. Then she said with emphasis: "Southern serves the South." ■

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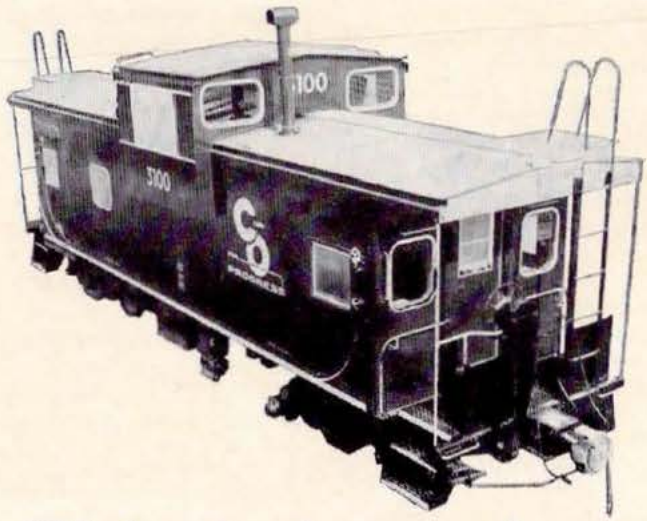

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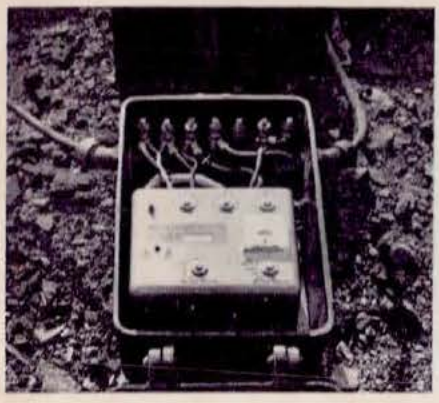
Circle 12 on coupon page 32

NEW PRODUCTS REPORT



Presence detector (RA-1)

This detector is designed to function with a single turn insulated copper wire loop arranged in the form of a figure 8 extending from 30 ft to 100 ft along the track.

It consists of a reference oscillator with a nominal frequency A of 85 KHz with a selection switch on the top plate which can change reference frequency to B approximately 78 KHz or C = 70 KHz, thus permitting the one standard unit to be used for three closely adjacent loops.

A second oscillator connected to the track loop is tuned by three decade switches to secure a frequency approximately 10 KHz higher than reference oscillator.

A change in loop frequency to a value greater than 250 ± 50 Hz will cut off signal and cause a relay to drop. *Western-Cullen div. Federal Sign & Signal Corp.*

Diode tester (RA-2)

A new low-cost tester for SCRs, Triacs and diode/rectifiers is a limit tester that provides go, no-go readout. Any device can be tested, providing it has a leakage current of 10 milliamperes or less at rated blocking voltage, a blocking voltage rating of 20 volts to 500 volts, a conduction current rating of 20 ma or more and a gate trigger current requirement of less than 100 ma (for SCRs and Triacs). Most devices with conduction current ratings up to 35 amp are within these parameters.

The tester is completely self-contained, portable, operates on 110 volts AC, checks rated voltage to 500 volts. Housed in a high-impact-resistant plastic case with etched indices on a brushed aluminum control panel, the unit measures 7 3/8 in. high and 3 in. deep and 8 3/8 in. long. *Alfred-Thomas Controls, Inc.*

Air cell battery (RA-3)

A new line of Ucar air-depolarized primary batteries can deliver more power for longer periods of time from the same size case. The new battery was designed principally as a reliable source of power for signal applications in the railroad industry and communications stand-by power.

A new electroyte of micro-milled lime provides a flatter discharge curve, and permits the battery to operate at lower temperatures than other batteries. The new line consists of six Ucar Air Cell batteries with ratings; ranging from 1.25 to 3.75 volts, capacity from 1,000 a.h. to 3,000 a.h. and maximum continuous drain from 1.25 amp to 3.75 amp.

Ucar Air Cell batteries are shipped either already activated or with the liquid electroyte in sealed, polyethylene bottles, according to user convenience. *Union Carbide Corp.*

Capping kit (RA-4)

A new communication cable kit takes only three minutes to install and can be used in temperatures as low as 10°F. Extensive field testing of this self-contained kit has proved that it is ideally suited for aerial cable capping, direct burial capping and service drop wire splicing. It meets the requirements of REA specification PE-70 for splicing kits. Heart of the system is a Hysol developed polyurethane compound that sets up in less than two minutes after mixing, and provides absolute protection of the cable end splice against moisture and other environmental hazards. After mixing components, installer inserts cable end or splice into tube, holds in place for less than two minutes, and job is complete. Kits are available in two sizes for cables up to 1.6 in. in diameter. *Hysol Div., Dexter Corp.*

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COMPANY .....

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• Inquiries can be processed only if title and company are shown. 7/21/69

PEOPLE

CHICAGO & NORTH WESTERN.—**M. S. Reid** named assistant chief engineer-administration, and **J. A. Barnes,** assistant chief engineer-maintenance. **H. C. De Berg** appointed general roadmaster, Chicago. **S. F. Kujawa** becomes trainmaster-traveling engineer, Twin Cities division, St. Paul.

GREAT NORTHERN.—Appointed the following superintendents: **P. B. Rasmussen,** Minot division, Minot, N.D.; **David H. Burns,** Dakota division, Grand Forks, N.D.; **J. W. Wicks,** Cascade division, Seattle. **P. M. Achre** and **G. T. Rasmuson** named terminal managers, with headquarters at Spokane and Seattle, respectively. **M. G. Whitsell** named assistant terminal manager, Seattle.

Title of **R. L. Grinde** changed from assistant general superintendent transportation to director train and power operations.

T. G. Kotnour, supervisor of air brakes, Cascade division, named master mechanic of the division, Seattle, to replace **D. R. Smart,** transferred to the Spokane division, Spokane. Mr. Smart replaces **R. J. Seeley,** transferred to the Minot division, Minot, N.D., replacing **D. S. Kukull,** transferred to the Willmar division, Minneapolis.

H. D. Knudsen and **Richard K. Gray** named supervisors, freight claim prevention, Lines East, St. Paul, and Lines West, Seattle, respectively.

Title of **J. W. Kirby,** general superintendent dining cars, changed to director dining and passenger train services.

MILWAUKEE.—**J. Harold Mitcham,** assistant regional manager-sales, Portland, Ore., named regional manager-sales, Milwaukee, Wis., to succeed **Robert T. White,** retired (RA, June 23, p. 56). **Robert D. LaHatt,** manager of forest products sales, Chicago, named district manager-sales, Portland. **Arthur E. Bourgeault,** district manager of sales, Dubuque, Iowa, transferred to Minneapolis. Mr. Bourgeault's successor is **William R. Hayghe,** assistant to vice president of traffic, Chicago, who in turn is succeeded by **Robert E. Bennett,** general freight agent, Chicago.

MINNESOTA TRANSFER.—**E. F. Manning** appointed superintendent. **C. L. Lamphere** named manager of terminal control.

MISSOURI-ILLINOIS.—**R. T. Williams,** traffic manager, St. Louis, retires July 31 after more than 37 years of service.

MISSOURI PACIFIC-TEXAS & PACIFIC.—**Joseph T. Leze,** assistant general passenger agent, New Orleans, retired June 30 after 41 years' service.

NORTHERN PACIFIC.—**Russell L. Koerper,** executive assistant to the president, retired July 1 after 17 years of service.

SANTA FE.—**George W. Cox,** vice president-industrial development, named vice

(Continued on page 36)

FRANK MALONE

WATCHING WASHINGTON

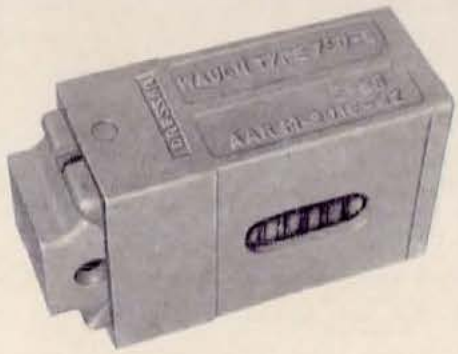
ARE YOU FOLLOWING the fading shadow of the 7% investment tax credit? Draw a line across Capitol Hill. The question of why-shouldn't-the-credit-be-repealed has moved from House to Senate. For Finance Committee hearings, the railroads sent up Frank E. Barnett, Union Pacific chairman, to speak in specifics (after Thomas M. Goodfellow, AAR president, had spoken in general terms.)

WHAT YOU HAD was the strong-toned boss of the western giant testifying that, even for a railroad like UP, repeal of the benefit would mean loss of a bicep. Credit repeal most probably would force UP to bury its plan for further equipment-buying and plant-modernizing. It would be a matter of economic necessity rather than deliberate policy, Barnett said. To see what that would mean, just look at what UP did with the credit. From 1961 through 1966, new cars multiplied like flies. In 1961, UP bought 659 new cars. In 1966, the figure was 8,531. That's nearly a 1,200% increase. From 1965 to 1966 alone, there was an increase of almost 100%. In 1966 the credit was suspended. There was a 7% drop in 1967 purchases, and a 60% drop for 1968, However, on the basis of the 1968 credit restoration, there is a 232% jump in UP's 1969 acquisition and orders.

YOU CAN REALLY SEE what that means by looking at those acquisition figures in dollars. In 1961, the total charge to the investment account was $10.1 million. In 1966, it was $140.8 million. In 1967 it dropped to $124.2 million, and in 1968 to $37.8 million. For 1969, however, the figure would be an estimated $184 million. That record includes: (1) a "dramatic increase in the average capacity of a UP car; (2) the steady retirement of old, lower-capacity equipment; (3) an annual drop in the average age of his railroad's cars, Barnett said. "This indicates that Union Pacific . . . is meeting the requirements placed upon it to keep pace with expanding national needs," he added.

WHAT HAPPENS to Union Pacific will be felt across the nation, Barnett said. That's because UP is a big contributor to the freight-car pool from which "less fortunate brothers" lease equipment (and apply the credit to their leasing costs). If credit appeal will crimp UP, what will it do to weaker railroads? With all its growing fleet, the mighty UP could report only a 2% increase in first-half net earnings.

turn to WAUGH...



TYPE 730-E

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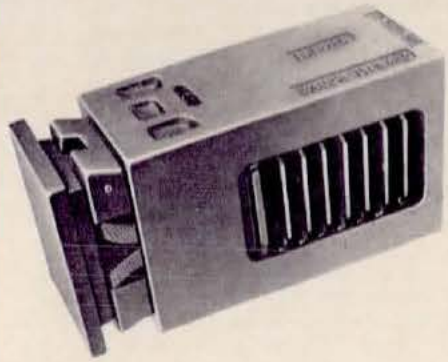

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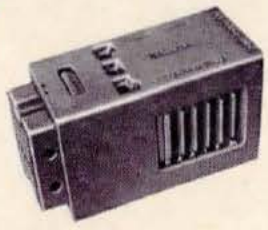
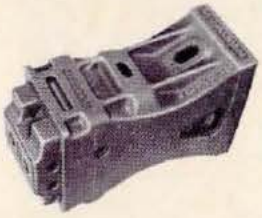


TYPE 700

Friction-Rubber

Unconditionally Approved—Substantially Exceeds AAR Specification M-901. Official capacity is 51,600 ft. lbs. at 2.62" travel, at 1,006,200 lbs. reaction.



TYPE 420A

Friction All-Steel

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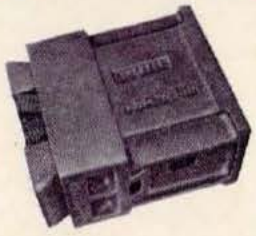
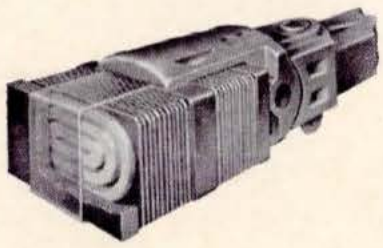


TYPE 451

Friction All-Steel

Unconditionally Approved — Exceeds AAR Specification M-901 minimum requirements of 18,000 ft. lbs. at closure.



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MANUFACTURING

Circle 14 on coupon page 32

James R. Scott
Santa Fe

Theodore A. Blaske
Santa Fe

(Continued from page 33)

president of the new real estate and industrial development department. **James R. Scott** appointed assistant vice president-real estate and industrial development. **Theodore A. Blaske** named director of industrial development. **Robert R. Bell** becomes director of commercial real estate. Mr. Bell was previously in charge of real estate activities for **Continental Assurance Co.** and **Continental Casualty Co.**, Chicago.

Flory Mauriocourt, vice president-information systems, Chicago, retired July 1 after more than 45 years' service.

SOUTHERN PACIFIC.—D. L. Praeger, manager, disbursements accounting, named to the newly created position of assistant general auditor. **J. P. Gallagher** replaces Mr. Praeger.

Martin J. Karlovic, assistant division engineer, Oregon division, Dunsmuir, Calif., appointed division engineer, Western division, Oakland, Calif., to succeed **J. B. Vernon,** promoted. Mr. Karlovic's successor is **Gary R. Lily,** assistant division engineer, Western division, Oakland. **Raymond A. Branstetter** transferred from the Sacramento division, Sacramento, Calif., to succeed Mr. Lilly, and in turn is succeeded by **Robert J. Vincent.**

SOO LINE.—W. E. Thompson, district sales manager, New Orleans, transferred to Detroit, to succeed the late **H. H. Wentzel.** Mr. Thompson's successor is **G. B. Kracher,** who will have headquarters in Memphis Mr. Kracher is replaced as assistant district sales manager, Jacksonville, by **D. L. Stumpf,** transferred from Eau Claire, Wis. **M. S. Kelley** succeeds Mr. Stumpf. **H. R. Kunst** and **D. R. Augustine** become assistant district sales managers, Detroit and St. Louis, respectively.

TERMINAL RAILROAD ASSOCIATION OF ST. LOUIS.—K. L. Kelley appointed vice president and comptroller.

TEXAS & PACIFIC.—R. F. Hickerson named trainmaster, Fort Worth, Tex.

DIVIDENDS DECLARED

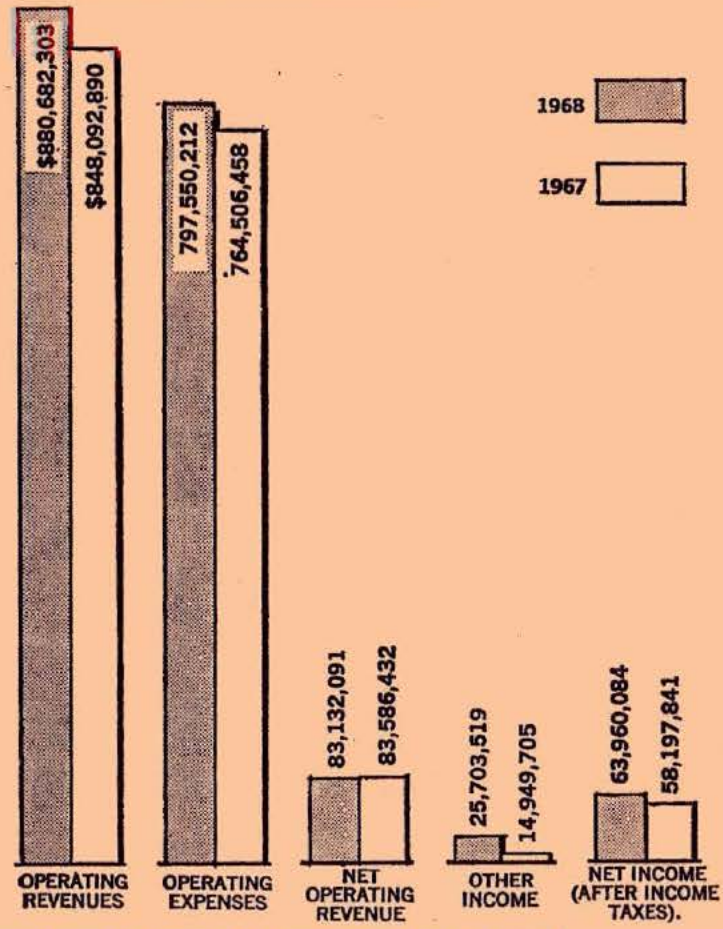
ATCHISON, TOPEKA & SANTA FE.—5% Preferred, 25¢, semiannual, payable Aug. 1 to holders of record June 27.

CANADA SOUTHERN.—$1.50, semiannual, payable Aug. 1 to holders of record July 15.

CANADIAN PACIFIC.—$1.60, increased, semiannual, payable July 21 to holders of record June 23.

CLASS I MOTOR CARRIERS OF PASSENGERS

Selected statistics



Source: Bureau of Accounts, ICC. Figures are for intercity and local or suburban operations. Class I motor carriers are those having annual gross operating revenues of $200,000 or more.

NEW ORDERS FOR MACHINE TOOLS*

	May 1969 ($000)	May 1968 ($000)	5 mos. 1969 ($000)	5 mos. 1968 ($000)
Metal cutting tools	113,450	93,300	596,050	438,850
Metal forming tools	54,600	22,500	272,550	110,600

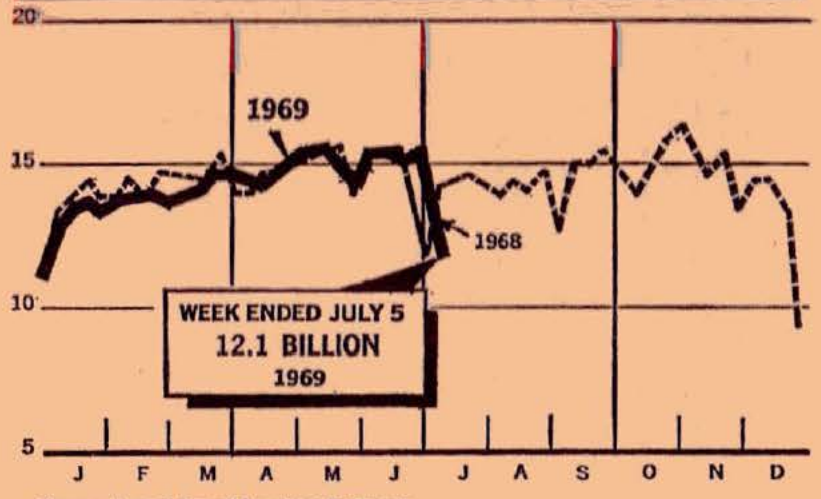
MACHINE TOOL SHIPMENTS*

	May 1969 ($000)	May 1968 ($000)	5 mos. 1969 ($000)	5 mos. 1968 ($000)
Metal cutting tools	98,900	121,300	489,450	584,700
Metal forming tools	31,600	29,100	155,300	150,200

*Including foreign and domestic.
Source: National Machine Tool Builders' Association.

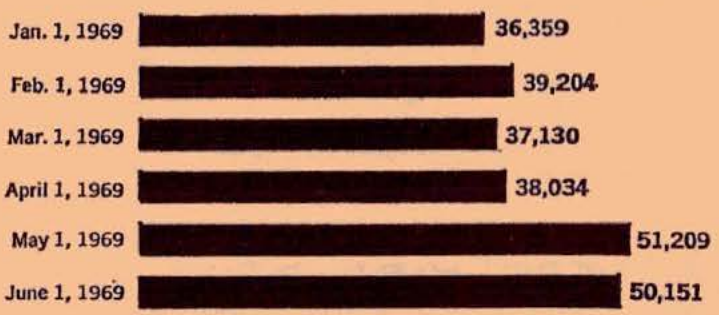
RAIL FREIGHT TRAFFIC TRENDS

BILLION TON-MILES (Estimated)



Source: Association of American Railroads

FREIGHT CARS ON ORDER AND UNDELIVERED*



*Including cars to be built new and to be rebuilt.
Source: American Railway Car Institute and AAR.

Current Statistics

Net income, Class I roads	
Three months, 1969	$ 97,000,000
Three months, 1968	$111,650,113
New freight cars on order	
June 1, 1969	47,445
June, 1, 1968	19,281
New freight cars delivered	
5 mos., 1969	27,391
5 mos., 1968	26,951
Serviceable cars	
May 1, 1969	1,375,709
May 1, 1968	1,398,792

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended July 12 were not available as this issue of Railway Age went to press.

REVENUE FREIGHT CARLOADINGS

Commodity	July 5 week	Preceding week	Per cent change
Grain	29,813	32,701	— 8.8
Farm products	11,391	13,207	—13.8
Metallic ores	46,927	51,702	— 7.4
Coal	46,927	107,064	—56.2
Crushed stone, gravel & sand	29,399	34,635	—15.1
Nonmetallic minerals	10,173	11,482	—11.4
Grain mill products	17,000	19,346	—12.1
Food & kindred products	19,944	22,530	—11.5
Primary forest products	18,536	23,722	—21.9
Lumber & wood products (except furniture)	12,346	15,761	—21.7
Pulp, paper & allied products	22,077	25,830	—14.5
Chemicals & allied products	21,805	24,956	—12.6
Petroleum products	9,458	11,524	—17.9
Stone, clay & glass products	19,286	22,129	—12.8
Coke	7,652	7,839	— 2.4
Metals & products	27,348	29,881	— 8.5
Motor vehicles & equipment	18,910	23,838	—20.7
Waste & scrap materials	11,922	14,619	—18.4
Forwarder & shipper assn. traffic	6,410	7,443	—13.9
All other carloads	60,503	75,229	—19.6
LCL traffic	1,512	1,784	—15.2
Total cars loaded	450,267	577,222	—22.0

CUMULATIVE TOTAL 27 WEEKS	1969	1968	1967
	14,378,866	14,465,791	14,408,153

PIGGYBACK CARLOADINGS

U.S. piggyback loadings for the week ended July 5 totaled 23,552 cars, carrying 38,886 trailers, compared with 22,228 cars, carrying 36,593 trailers, in the corresponding 1968 week. Loadings for 1969 up to July 5 totaled 687,182 cars, carrying 1,130,696 trailers, compared with 675,919 cars, carrying 1,095,471 trailers, in the corresponding period of 1968.

IN CANADA

Cumulative	Revenue Cars Loaded	Total cars Rec'd from Connections
June 21, 1969	1,720,675	597,423
June 21, 1968	1,748,921	601,747

FREIGHT-TRAIN CARS

● *Trailer Train.*—Ordered 1,184 new cars as follows: from Pullman-Standard, 664 89-ft. 4-in. low-level cars; from ACF, 250 89-ft. 4-in. all-purpose cars and 50 89-ft. 4-in. low-level cars; from Bethlehem Steel, 220 89ft. 4-in. standard level cars. New cars ordered by TTX since Jan. 1 now total 4,315. As of June 13, TTX had 52,879 cars in service or on order.

TRANSIT

● *Pittsburgh.*—A $114-million rapid transit system has been proposed to the Port Authority Transit by Westinghouse Air Brake. The system will offer new automated trains operating on modern, grade-separated rail rights of way, while maintaining and improving existing revenue service. WABCO's proposal is based on automated operation with an attendant on board, although the system could be operated unattended. The WABCO automated system has been demonstrated at EXPO '67 in Montreal and, later, on the Delaware River Port Authority's South Jersey Line. (See p. 12.)

NEW FACILITIES

● *U. S. Steel Corp.*—Has ordered two locomotive remote-control systems from WABCO. The systems will be used in the Youngstown (Ohio) Works of U. S. Steel.

● *Containerfreight Corp.*—Will open a container freight distribution center Sept. 1 at Oakland, Calif. Services to be provided include processing of containerized cargo for containership operators, consolidation of container freight, processing of freight for overseas and domestic forwarders, container vanning and de-vanning, railcar loading and unloading, trucking and contract storage. Containerfreight's terminal will be served by Western Pacific.

FOREIGN

● *Pakistan.*—The World Bank has lent Pakistan the equivalent of $14.5 million to improve West Pakistan's railway system. All imported goods or services bought with the loan will be obtained through international competitive bidding. The loan will finance the foreign exchange costs of major renovations and improvements, including track renewal; bridge strengthening; better marshalling, signaling and telecommunications facilities; and re-equipping rolling stock maintenance shops. The WB-financed project is part of Pakistan's third five year plan for the Pakistan Western Railway, the publicly controlled agency which operates the 5,400-mile system.

● *West Germany.*—Reportedly will purchase in the United States some $125 million worth of automatic railroad coupling devices for the German State Railways.

YOU OUGHT TO KNOW

Helsinki will build transit line

Helsinki (pop. 500,000 - plus) is ready to take a first step toward improved transportation that U.S. cities twice its size feel they are too small for. The City Council of the Finnish capital has approved construction of a $75-million, 9-mile, double-track, surface-and-underground rapid transit line as the first phase of a broader system. International bids will be sought on rolling stock and an automatic control system.

DOT grants awarded to four universities

The DOT has awarded four grants totaling $450,000 to support various university programs in urban transportation. The Georgia Institute of Technology, Illinois Institute of Technology and Northwestern University each received grants of $125,000. The University of Missouri at Rolla received $75,000. "The grants," said DOT Secretary John A. Volpe "will aid the institutions in improving their courses for graduate training in urban transportation and its relationship to urban development."

NTSB to investigate derailment

The National Transportation Safety Board will convene a public hearing (date to be announced) to assist in determining the cause of a recent fatal derailment accident involving a passenger train on Penn Central tracks near Glenn Dale, Md. on June 28. Chairman John H. Reed has pointed out that, among other technical items of interest, the Board will concern itself with welded and other steel rails. "The condition and structure of track in relation to the running of high speed trains will be given extensive examination," he said.

"Exciting new era" seen for REA

"REA will be known as an independent express carrier which uses all modes of transportation to expedite shipments efficiently and profitably," said Spencer D. Moseley, president of Railway Express Agency, Inc., at a press conference in New York July 11. Moseley, together with four other officers of REA, have agreed to buy the corporation for $2.5 million — $1 for each share outstanding —and said that he expects the company to report a $3-to-$4-million profit in the year ending June 30, 1970. The Moseley group will also give the former owner-railroads a warrant of 3/10ths of a share of a new holding company that will operate the business. The warrants entitle the holder to purchase stock in the new company at prices starting at $10 a share in 1971 and rising to $25 by 1974. The offer has been accepted by some 90% of the shareholders so far.

Cornell gets labor "library" from the UTU

What's billed as the "largest known collection of historical documents and information on railroad labor" has been donated to Cornell University's School of Industrial and Labor Relations by the United Transportation Union and the four operating organizations which merged to form UTU. Records date back to 1868, and include "all non-current files of the UTU." In the library will be convention proceedings, officers' reports, financial records, contracts and working agreements and government reports. Cornell is also recording a history of events connected with the UTU merger, through taped interviews with union leaders who were instrumental in planning and carrying out the four-way consolidation.

PC develops new inspection system

Penn Central's research lab in Cleveland has developed an electronic track inspection system, called TRACON, enabling a railroad to keep closer tabs on the condition of its track. The new system can be installed in an instrumented train traveling at more than 35 mph—most other systems operate only at 20 mph or less. It analyzes track conditions and pinpoints any deviation from a smooth ride.

LUTHER MILLER

AS THE EDITOR SEES IT

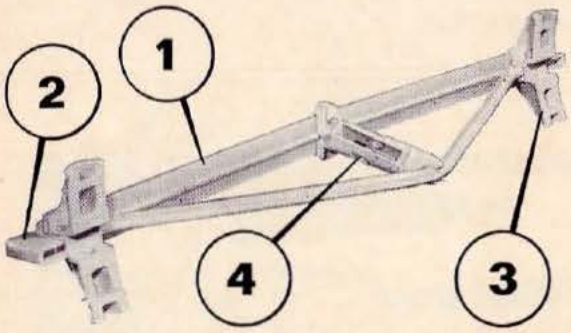
CALL IT howling at the moon if you will—but this week seems a particularly appropriate time to recall some down to earth words uttered by Penn Central's Stuart Saunders: "The U.S. government is spending virtually nothing to assist 73 million people to get to and from their jobs, while putting up $25 billion to send three men to the moon."

WE ARE INDEBTED to writer A. Q. Mowbray for calling these wistful words to our attention. Mowbray is the author of a new book, "Road to Ruin" (J.P. Lippincott Co.; 240 pp., $5.95) which will probably get less attention from a moon-struck, highway-happy generation than it deserves. His book goes far beyond the people-mobility problem. It is a searing indictment of the "Mad Paver, astride his bulldozer, trailing oceans of asphalt, imbued with a single-minded passion to hard-surface the world." Mowbray admits this view is exaggerated, "but not much."

MOWBRAY DESCRIBES in detail the powerful lobbies that fuel a relentless drive that has so far paved 3,600,000 miles of roads and streets —one mile for every square mile of land in the U.S. He goes so far as to suggest that "the Public Works Committee of the House is owned and operated by the highway lobby." He describes the Highway Trust Fund as a monster that feeds upon itself: the more roads we build, the more money is generated to build more roads. He uncovers inequities that permit both public and private land to be seized for highways.

HE TAKES NOTE of the fact that 20 times as much transportation can be provided by a mile of railroad as by a mile of highway. He misses only one important point: What will happen if and when freight railroads are done in by "the road gang" as the passenger railroads have already been done in? Let the Public Works Committee ponder that.

USED OVER 4-MILLION TIMES



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SUPPLY TRADE

Cecil J. Minor has been appointed manager—marketing, Transportation propulsion Department, **General Electric Co.** He will have responsibility for marketing electric transmission for off highway vehicles and industrial equipment that includes propulsion components and systems for rapid transit cars, locomotive applications, and drilling equipment. Mr. Minor was formerly manager—process instrumentation sales, Instrument Department.

Robert J. Casey has been appointed to the newly established post of director of public relations—transportation and general industry, **Westinghouse Air Brake Co.,** Pittsburgh, Pa. Mr. Casey was formerly manager, Special Services Department, **PPG Industries.**

Donald Taylor has been named executive vice president, **Nordberg Manufacturing Co.,** Milwaukee, Wis. Mr. Taylor has resigned as president, Geo. J. Meyer Manufacturing Division, Automatic Sprinkler Corp. of America, effective July 11.

Charles E. Webb, Jr., has been appointed sales representative, Charlotte district, **Okonite Co.**

Pullman-Standard Division of **Pullman Incorporated** has announced that its northeast region sales office has been moved from New York to Philadelphia. **T. H. Callahan,** vice president, sales, is in charge of the office.

John F. Crimmins has been appointed sales representative, **American Car & Foundry Division, ACF Industries Inc.,** with headquarters at St. Louis. He was previously a supervisor in the division's inquiry and contract marketing section, with headquarters in St. Charles, Mo.

C. W. Plunkett has been elected vice president, railroad sales, **Jackson Vibrators, Inc.** Mr. Plunkett, who was general manager-sales, will have headquarters in Chicago.

Allan S. Evans has been named works manager, **Diesel Division, General Motors of Canada Limited,** London, Ont., to succeed **Howard A. King,** who retired May 31.

Charles J. Scarcello has been promoted to vice president, **Railease Corp.,** a subsidiary of **U.S. Leasing International,** with headquarters at San Francisco, Calif. For the past year Mr. Scarcello has been general manager of Railease.

Robert N. Thomas has been appointed sales and service representative, **Magnus Metal Corp.,** at Chicago. Mr. Thomas was formerly associated with **American Steel Foundries.**

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VIEWPOINT

Where's the money coming from?

Tomorrow's railroads, if their full potential is to be realized, are indeed going to need large infusions of capital within the next few years. Just how much new money will have to be raised is a matter of conjecture; but as the article beginning on p. 19 of this issue points out, the figure could run as high as $5 billion a year for at least a decade. This works out to be some $22 billion *more* than the depreciated net investment of all Class I railroads now.

The real question, however, regardless of the amounts ultimately required, is where will the new investment money come from? And there are just three normal sources: Retained earnings which can be plowed back, depreciation accruals, and new borrowings. Yet railroad earnings continue dismally low and could shrink even further in the face of constantly-increasing costs. Moreover, a low earnings level is not a strong base on which to project borrowings. Investors want not only a currently-competitive return, but full assurance that their original loan will be returned. Nor is depreciation sufficient, either. New investments already outstrip what this source provides, and if new railroads are to be created the gap will certainly widen.

Thus the conclusion has to be that some borrowing—and probably a substantial amount if you consider the whole industry—will be required. A critical question confronting railroad executives is what sources, new or old, can be tapped to provide the funds needed.

This question is especially urgent in an inflationary economy where the price of money, along with everything else, seems to go up, up and up. How, indeed, can a less-than-3% industry afford to borrow 8% and 9% money, even if the money were available for the borrowing? There are specific expenditures, to be sure, which can be made with assurance of fast payback, just as there are clear-cut cases where so-called disinvestment out of perpetual money-losing service would be advantageous.

Various suggestions have been made in recent years which, in one way or another, would involve the federal government in supplying railroads with the capital funds they obviously need. Proponents of such plans argue that railroads are the only form of modern transportation which rely entirely on the private market for needed financing.

HOW GOVERNMENT MIGHT HELP

What those who would turn to the government suggest ranges all over the lot: The sale-and-leaseback of railroad fixed plant; the sale of railroad rights-of-way, with railroads owning the track and paying a user charge (fuel tax) for the trains they operate; a transportation trust fund, made operative by proceeds from the user charge or a special tax; government acquisition of a fleet of freight cars which could be made available to railroads in time of peak needs; an FHA-type government-insured loan scheme which, in theory, would lower railroad borrowing costs in the open market.

Whether any such plan, or plans, might work is impossible to say. But the healthy thing, we think, is the growing recognition that railroads need to start planning and building for better days and this, implicitly, suggests not all people think the industry's days are numbered. That's a good place for a new start.

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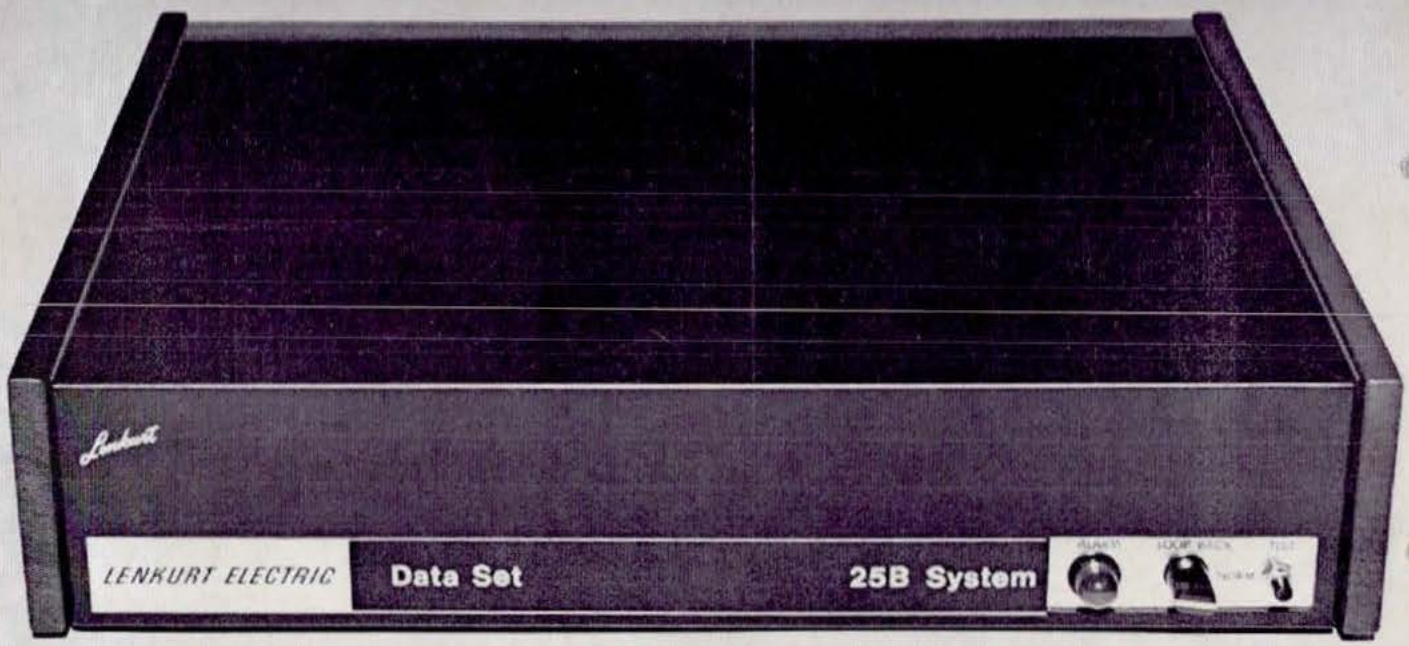

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